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The

Quarterly Journal

of the

Mythic Society

INDEX TO VOLUME XVIII
(For the year 1927-28)

DALY MEMORIAL HALL
Cenotaph Road, BANGALORE

The Mythic Society

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MAHARAJA OF MYSORE
PATRON OF THE MYTHIC SOCIETY

The Silver Jubilee of whose reign was celebrated on the 8th August 1927.

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THE SILVER JUBILEE MESSAGE

The Palace,

Mysore,

8th August 1927.

On this day, when I complete the twenty-fifth year of my reign, I send my loving greetings to each one of my dear people, with a heart full of solicitude for their happiness. With unceasing effort I shall, while life lasts, endeavour to promote their welfare and prosperity, and I pray that God may give me light and strength to achieve this, the supreme object of my life and rule.

Krishnaraja Wadiyar.

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The
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Mythic Society

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THE SEVENTEENTH ANNUAL MEETING OF THE MYTHIC SOCIETY.

Bangalore, 8th September 1927.

K. CHANDY, ESQ., B.A., *First Member of Council, in the Chair.*

THE Seventeenth Annual General Meeting of the Mythic Society was held in the Daly Memorial Hall, on Thursday, the 8th September 1927.

RESOLUTION :—

1. The members of the Mythic Society most respectfully tender their loyal congratulations to their Patron His Highness Colonel Sir Sri Krishnaraja Wadiyar Bahadur, Maharaja of Mysore, on the celebration of the Silver Jubilee of his reign and pray that he may long be spared to rule over his grateful people.
2. Resolved that a copy of the above resolution be sent to the Private Secretary to His Highness the Maharaja of Mysore for kind submission.

Rajakaryaprasakta Rao Bahadur M. Shama Rao, Esq., M.A., President of the Society, in moving the above resolution, spoke as follows:—

LADIES AND GENTLEMEN,

I beg to propose the following resolution for your acceptance: "that the members of the Mythic Society most respectfully tender their loyal congratulations to their Patron His Highness Col. Sir Sri Krishnaraja Wadiyar Bahadur, Maharaja of Mysore, on the celebration of the Silver Jubilee of his reign and pray that he may long be spared to rule over his grateful people."

It needs no commendation on my part to bespeak your unanimous support to this resolution. His Highness the Maharaja has now been directly ruling us for the past twenty-five years and the outburst of enthusiasm and the profuse greetings of loyalty which His Highness' Silver Jubilee has evoked in all parts of the State and even outside, affords testimony not only to the benign rule of His Highness in developing the material and moral progress of the State and of its inhabitants, but also has brought into prominence that the moral worth of a personage is a great factor in the appreciation of the performances of an individual wherever he may be placed. The large crowds of people that assembled yesterday drawn from all parts of the State, the pleased and contented look that characterized them as they witnessed their Ruler passing in procession before them, the emulation with which the residents of Bangalore vied with one another in demonstrating their loyalty by setting up pandals and arches, translating thereby their inner feelings of gratitude into outer marks of manifestation, all go to show what a great hold His Highness the Maharaja and the Royal Family of Mysore have secured on the affections of their subjects. To the members of the Mythic Society who are acquainted with the past history of Bangalore such a demonstration appears to be peculiarly appropriate and does credit to the present generation who have inherited the traditions of their ancestors from the days of Chikkadevaraja Wadiyar, the great constitutional monarch and ancestor of the present Maharaja who ruled this country towards the end of the seventeenth century. The City of Bangalore at that time was not included in the Mysore State and was an object of contention between Aurangzeb, the Moghul Emperor and the Bijapur Nawab who was stationed at Sira. Chikkadevaraja Wadiyar, a true statesman as he was, blessed with long foresight, realized at once the importance of the situation of Bangalore and by his diplomacy won over Aurangzeb to his side and enabled himself thereby to include Bangalore in the Mysore territory. He did not however rest with a mere political success but did everything in his power to introduce various improvements and among these may be

mentioned the colony of pattigar weavers which he established in the City and thereby gave an impetus to its industrial prominence. The City of Bangalore, therefore, is under a special debt of gratitude to the Royal House of Mysore and it is no wonder that its inhabitants, while rejoicing in common with the inhabitants of the other parts of the State, should feel a special obligation to the Royal House of Mysore and should seek occasion to show their gratitude and loyalty to so worthy a descendant of that House as our present Maharaja is.

It is not for us on this occasion to traverse the whole field of beneficent measures inaugurated during the period of a quarter of a century which has elapsed from the time of His Highness' assumption of power into his own hands. Others outside these walls have referred to such measures and shown how much good they have secured to our country. It only suffices for us to say here that under His Highness' rule, the State of Mysore has come to occupy the foremost place among the Native States of India and His Highness has set a real example to show how peace has its victories no less than war. But for the beneficent rule of His Highness and the progressive tendencies with which it has been associated in the shape of the Representative Assembly, the Legislative Council and other popular institutions, thereby ensuring that the measures of Government initiated for the benefit of the people are really in consonance with their wishes and tend to their real utility, the recent remission of ten and a half lakhs of rupees annually out of the subsidy would not have come about. This success is a great achievement on the part of His Highness' statesmanship and affords also an insight, if I may venture to say so, into the mind of the Imperial Government that their task is not concluded by merely maintaining harmony among the different Rulers of Indian States among themselves and with the Suzerain Power but that when a Ruler of a Native State makes the advancement of the good of his subjects his paramount duty, they are also willing to remedy inequalities and injustices which by force of circumstances in the past may have established themselves. During the reign of our Maharaja, Mysore has won success in other fields also. While the German war brought miseries also in its train, it helped to show that the martial traditions of India were only slumbering and had not become extinct. It is not too much if I say that Mysore though pursuing peaceful avocations for a century past, has shown that her military glory is not merely one of the past but can equally show itself in the present and the future when occasions present themselves for the manifestations of such spirit. Lord Curzon in his speech in August 1902 at the time when His Highness was invested with ruling powers, referred in well-merited terms to the great services rendered

to this country by His Highness' ancestors including His Highness' father Sri Chamarajendra Wadiyar Bahadur and His Highness' mother, Her Highness Maharani Vani Vilas Sannidhana C.I. I need not refer in detail to these services here but I cannot help referring to a few names prominently before my mind. To Mummadi Krishnaraja Wadiyar we owe the integrity of Mysore kingdom and it was his constitutional agitation for the restoration of this country that secured the continuity of Mysore as one of the Native States. I have already referred to the statesmanship of Chikkadevaraja Wadiyar in whose time the Mysore territories were greatly expanded and in the constitution of Government which he introduced we still see its traces in our present-day Government. Going back further we have the great name of Yaduraja, Raja Wadiyar and Kantirava Narasimharaja Wadiyar. Yaduraja was a veritable knight-errant and he it was that succoured a forlorn maiden, the descendant of the then Ruling House of Mysore from an odious and forced marriage and married her himself, thereby becoming the first progenitor of the present Ruling House of Mysore. Raja Wadiyar was as much noted for his military prowess as for his statesmanship and love of justice and fairplay. Kantirava Narasimharaja Wadiyar's name is even now in the mouths of people whenever reference is made to great military exploits and the epithet Ranadheera with which he is associated resounds even now in the ears of the Mysore people. It can, therefore, be truly said that Lord Curzon when he referred to the ancestors of the present Maharaja indulged in no exaggeration but only related sober facts borne out by history.

Coming to our own society, the Mythic Society, I need not say, has been under very great obligation to His Highness. The substantial generosity of His Highness and of His Highness' Government enabled our first President, the late Father Tabard, to embark upon the construction of the beautiful building in which we are assembled to-day not only as a memorial to Sir Hugh Daly, one of our respected British Residents but also as a Home for the Mythic Society and as a place of pilgrimage to antiquarians, to research workers and other scholars visiting Bangalore not only from all parts of India but also from outside civilized countries of the world. At the time of laying the foundation stone of this building on the 31st August 1916, His Highness expressed the hope that when the objects of the Mythic Society became better known, the people at large, not the learned few only, would begin to feel pride and interest in its work. He also further emphasized that the Society would bring together Europeans and Indians to work on common platform for an object which appealed to the higher intellectual tastes of civilized life. May we not say that this hope has been a true forecast? At present, outside these walls, while communal differences and

petty bickerings often mar the even tenor and harmony of life, here in this building we know no such evils and the place has become a refuge to escape from the sordidness of the world and a haven to obtain intellectual peace. With these words I beg to commend the proposition to you and pray for your enthusiastic and unanimous support.

In seconding the resolution Col. P. A. Skipwith said that Mr. Shama Rao had already invited the attention of the Meeting to the imposing and high personality of the Ruler of Mysore and he requested all the members to join in one voice for the adoption of the resolution.

The resolution was carried unanimously and with acclamation, all the members standing.

Mr. S. Srikantaiya, General Secretary and Treasurer, then read the Report for 1926-27.

REPORT.

The Committee of the Mythic Society desire to place before you this evening a report of the Society's activities during the year 1926-27.

PRESIDENT :—At the last annual meeting of the Society, Rajakaryaprasakta Rao Bahadur Mr. M. Shama Rao, Chairman of the Committee during the previous year, was elected President of the Society, in succession to the Rev. Father A. M. Tabard.

2. MEMBERSHIP :—The strength in membership is steadily maintained, and during the year a few of the members have become life members. There are nearly 550 ordinary members and 40 life members on the rolls. It is hoped a larger number will become life members. The Committee renew their appeal to its members to invite their friends to join the Society.

3. We have to record, with deep regret, the death, during the year of four of our valued members. Mr. D. M. Narasinga Rao took a keen interest in connection with the construction of a building for the Mythic Society. Mr. B. Venkoba Rao was a life member and a most regular visitor to our meetings and the Society's Library. Dr. Hultszc and Mr. B. L. Rice were Orientalists of international reputation. Dr. Hultszc was an honorary member of the Society and was often contributing interesting papers to the Journal. Mr. B. L. Rice was the Director of Public Instruction, Head of the Archæological Department and author of a large number of works on Mysore. The present position of Kannada literature and our knowledge of Mysore history are almost entirely due to his labours of a life-time. Even after retirement, he continued his interest in the development of Kannada literature and he published *Mysore and Coorg from Inscriptions. Mysore* (2 volumes), *Epigraphia Carnatica and Sravanabelagola Inscriptions*

(2 volumes) are monumental works of reference on Mysore history. Not merely the Mythic Society or India but the learned world will be the poorer for their loss.

4. FINANCE:—The Statement of Receipts and Expenditure will show that the year opened with a balance of Rs. 140-15-1, while the closing balance was Rs. 618-12-1. In spite of a large investment on books and on repairs to the premises, we have been able to add to the fixed deposits which stand to-day at Rs. 10,450 and to show a fair closing balance. If the members in arrears should, however, be pleased to help us by clearing them, we can hope to be in a much better position than at present.

5. MEETINGS:—There were nine meetings during the year at which interesting papers were read and the Committee offer their thanks to the several gentlemen who delivered the lectures.

6. JOURNAL:—The Journal continues to maintain the high standard set by its promoters and we are grateful to the contributors who have helped in this endeavour.

7. EXCHANGE:—The exchanges include periodicals, transactions of research institutions, universities, departments of archæology, anthropology, etc. and of the various administrations in India.

8. LIBRARY:—In addition to the large number of volumes purchased by the Society, presentations have been made by the various Governments in India and the States of Hyderabad, Travancore and Kashmir. All publications in Mysore are sent to us. Besides the Oxford University Press, the universities of Calcutta, Madras and Mysore are sending their works to us. We are grateful to these and to the several authors who have presented their publications.

9. READING ROOM:—The Free Reading Room of the Mythic Society is becoming increasingly popular. It provides a very large and an excellent and varied collection of journals and magazines to the reader, in several languages, relating to the objects of the Mythic Society. The number of visitors during the year was 4,129.

10. PREMISES:—The hall and the premises are kept in good condition. The garden has been improved. The hall continues to be in demand for meetings by various associations. The Mysore Civil Service Association, The Civic and Social Progress Association, The Released Prisoners' Aid Society, The Non-Gazetted Officers' Association, The Mysore Chamber of Commerce among others held their meetings in the Daly Memorial Hall.

11. The Government of India have been pleased to sanction a permanent yearly grant of Rs. 300 to the Society and our grateful thanks are due to our Honorary President, The Hon'ble Mr. S. E. Pears, in this behalf. The Government of His Highness the Maharaja of Mysore have been pleased to renew their grant for another three years and we are always indebted to them for their generous sympathy in our efforts.

12. VISITORS:—Doctor Sir P. C. Ray was pleased to visit the Society and deliver a lantern lecture on "Hindu Chemistry" to a crowded audience. Quite recently, Mahatma Gandhi was amidst us and gave an interesting address on the untouchability question.

13. The Society was founded in 1909 and its continued flourishing condition is due mainly to the enthusiastic support it has received from its Patron, its founders and its members. The Committee desire to express their gratitude to them all for the sustenance afforded to the Society till its majority.

14. The Silver Jubilee of the reign of our Patron, His Highness Maharaja Sri Krishnaraja Wadiyar of Mysore, was celebrated throughout the State on the 8th August 1927, with becoming splendour amidst universal rejoicing, and a congratulatory address was presented by the citizens of Bangalore on the 7th September 1927. On this unique occasion, we beg to tender our most respectful homage and congratulations to the Maharaja on the celebration of the Silver Jubilee of his reign and fervently pray for the long continuance of his benevolent administration.

Rao Bahadur Mr. M. Shama Rao proposed that the Report be adopted. Mr. K. Devanathachariar, in seconding, said that the Report showed another year's good progress. After the death of the late Rev. Father Tabard early last year, there was a fear in the minds of some whether the Society would be able to continue its activities in the same excellent manner. But the work done during the year was extremely satisfactory. He referred to the scholarship and experience of the Society's learned President, Mr. Shama Rao, and congratulated Mr. Srikantaiya on the good work he had turned out and on his being able to follow in the footsteps of the late Father Tabard, especially in the art of beggary. He liked the Secretary's modesty in having influenced the President not to speak about Mr. Srikantaiya's good work and heartily supported the resolution and said that the Report may be adopted with the above remarks.

The Report was accordingly adopted.

Mr. K. R. Srinivasa Iyengar next proposed that Rao Bahadur Mr. M. Shama Rao be re-elected President of the Society. In doing so, he referred

in very felicitous terms to the vast learning, great experience and wide knowledge of men and matters the revered President possessed. His researches in the history of Mysore were especially noteworthy.

Mr. F. R. Sell said that in addition to all the qualities enumerated by Mr. Srinivasa Iyengar, the President possessed yet another rare thing: leisure. Responsible officers of such societies as this required men who had ample leisure at their disposal, which Mr. Shama Rao was not lacking in. He said that it was hard to find another of such attainments for the Office and he heartily seconded the motion.

The resolution was carried unanimously.

The following gentlemen were proposed by Mr. K. Srinivasa Rao and seconded by Mr. K. H. Ramaiya, as Vice-Presidents of the Society:—

1. Amin-ul-Mulk Mr. Mirza Mahomed Ismail.
2. Rajadharmapravina Dewan Bahadur Mr. K. S. Chandrasekhara Aiyar.
3. Rajamantrapravina Dewan Bahadur Mr. P. Raghavendra Rao.
4. Rajatantrapravina Dr. Sir Brajendra Nath Seal.
5. Mushir-ul-Mulk Mr. Mir Humza Hussein.
6. Mr. K. R. Srinivasa Iyengar.
7. Mr. K. Chandy.
8. Mr. C. S. Balasundaram Iyer.

The proposition was carried.

The following gentlemen were proposed by Mr. K. Sankaranarayana Rao and seconded by Mr. S. Narayana Rao for the several Offices:—

General Secretary and Treasurer:—Mr. S. Srikantaiya.

Joint Secretary:—Mr. A. V. Ramanathan.

Editors:—Mr. F. R. Sell and Mr. K. Devanathachariar.

Branch Secretaries:—

Ethnology:—Mr. C. Hayavadana Rao.
History:—Rev. Father C. Browne.
Folklore:—Col. P. A. Skipwith.

COMMITTEE:—The above *ex-officio* and

1. Mr. P. Sampat Iyengar.
2. Praktana Vimarsha Vichakshana Rao Bahadur Mr. R. Narasimhacharya.
3. Mr. K. Matthan.
4. Mr. K. Srinivasa Rao.

5. Mr. B. Puttaiya.
6. Arthasastra Visharada Dr. R. Shama Sastry.
7. Rao Bahadur Mr. H. Krishna Sastri.
8. Mr. N. S. Subba Rao.

The proposition was carried.

CHAIRMAN'S SPEECH.

LADIES AND GENTLEMEN.

While I am thankful to the Managing Committee of the Mythic Society and particularly to my friend Mr. Srikantaiya, the Secretary, for the honour that has been conferred on me by my nomination as Chairman of this Annual Meeting, I must sincerely apologise to you all, both on my hehalf and on behalf of the Society of which I am an unworthy member, for the Committee's inability to have secured for this occasion a Chairman of real eminence and distinction. All our previous Chairmen have been such. I trust, —in the best interests of the Society,— that this year will form no precedent; and that with this one unfortunate interlude, we shall again have a galaxy of distinguished names.

I beg leave to congratulate the Society and its Secretary on another successful year. The membership now stands at 550 of whom forty are life members; the reserve fund amounts to the handsome sum of Rs. 10,450; the Society has received recognition at the hands of the Government of India; the Reading Room is being more and more largely used, as also the Hall in which we have met; there have been lectures by very eminent men; the *Journal* continues in its unhurried, deeply learned course, to unearth many hidden treasures, and the Society has taken its place among the leading learned societies of the world. I have also to note that this particular Anniversary is distinguished from other anniversaries of the past and those that may come in the future in that this is the year in which our Patron, His Highness the Maharaja, completed 25 years of his glorious and beneficent rule—amidst the universal rejoicing of a happy and contented people; and the year in which the Society has itself completed 18 years of useful activity. If one may speak without irreverence of a society composed for the most part, with a few exceptions like your unhappy Chairman, of men of hoary wisdom, learning and erudition, as having been, in a manner of speaking, under guardianship, for instance, of public opinion generally and of the cultured world in particular, this year may be considered as one in which it has attained majority and need no longer have any guardianship; and may take its place with *confidence* among associations intended for the promotion of culture.

Ever after Mr. Srikantaiya conquered my opposition and got my unwilling consent to do his bidding on this occasion, I have been cogitating what an ignorant person could talk about at the Annual Meeting of a learned society. One of my predecessors in this Chair said that "any cultural institution is a standardized response or reaction of the organism to the extra-organic stimulus under generalised situations". Whatever that may mean, I feel that the talk of a rank outsider without any scholarly attainments will form no kind of reaction in the organism of the Mythic Society, and if, in addition, my remarks should also tire your patience, the responsibility for it has entirely to be borne by your Secretary.

Men used to believe that the sun and the stars were fixed in space by a beneficent Providence to give us light by day and night, and that the matter that we perceive is real and ponderable. It would now seem as if the solar system and the stars, and perhaps the whole universe are moving forward many miles a second, one knows not whither or why,—or with what cataclysms in the womb of the future,—and that matter is merely charges of different kinds of electricity,—a dance of electrons and protons,—we know not whence or wherefore. Then again, the ideas that we had about space and time have been mercilessly knocked out of us. When we are thus groping for more light in all departments of knowledge, it is worth while enquiring, whether the people that spend their time digging among the graveyards of history are not wasting their time. I do not know whether that was not the real opinion of another distinguished Chairman whose language was purposefully enigmatic about his own view of the matter. Should such doubts arise in the minds of people who spend weary hours in studying ancient beliefs, practices and institutions, I would say that in this welter of ignorance that I referred to, the one thing that seems to stand as real is the human mind; and that whatever effort is put forth in any branch of culture,—without bias, without prejudice,—has the undoubted effect of improving the mind,—and, apart from all other considerations, that itself is a distinct gain. I said without bias and without prejudice. If scholars begin with any kind of prepossession, their subsequent work is as good as worthless; but getting the correct facts about what may be called the attitude of the human mind towards its environments in the distant past gives an impetus in various directions the value of which cannot easily be measured. That is the first benefit. A second is that in the pursuit of truth, which your scholars are engaged in, there is no caste nor creed, no East nor West, but only the distinction between what is true and what is not. Such pursuit, it seems to me, makes on that account for those qualities of the mind which the heaven-inspired poet Shelley considered as most useful in the perennial

warfare against evil, namely, gentleness, virtue, wisdom and endurance, which "are the spells by which to reassume an empire over the disentangled doom". Hence, although my training and occupation do not enable me to understand a great deal of what is written in your very learned *Journal*, I feel all the time that these scholars are ultimately on the side of the Angels and I reverence them accordingly. This feeling of reverence towards those who are engaged in the pursuit of truth in any form is perhaps the best, or the only, offering that one whose work lies in very different fields may lay at the altar of a society like yours at its Annual Meeting.

Engaged, however, as I have to be in my daily work in thinking about the practical good, the pragmatic good, I hope you will permit me also to suggest two lines of investigation, which, apart from the discovery of the truth about those subjects, have a highly practical value. The first is, the origin of caste and the causes that have led to its present stratified condition. Some of you may remember that very recently I invited the attention of Christian Missionaries to the strange fact that during the early days of Christianity in India,—that is, long before the advent of Western Missionaries, the Hindu Sovereigns on the West Coast, who were undoubtedly as much under the spiritual (or priestly?) guidance of Priests as Sovereigns of the present day, nevertheless allowed Christian Churches to be constructed in the close proximity of Hindu temples and gave vast social privileges to their Christian subjects; and I may add to Jains also, and in fact, although Christians had both baptism and separate places of worship they were nevertheless regarded as an integral part of Hindu Society with even, it is believed, marital relations with caste Hindus. Why caste which thus appears to have been more fluid in that age, should afterwards have become so petrified as a subject that may very usefully be studied. Some one in this audience might, perhaps, succeed in binding the tresses of the morning of that hoary institution, so that all might notice the real texture. While it is impossible and useless to attempt to restore the beauty that must have been there to have given it such lengthened life,—that beauty has faded for ever,—accurate knowledge may enable us to *transform* it for wholesome uses in a changing world. The student may perhaps be led even to fruitful discoveries about the way in which, in view of the present times and circumstances, we might mould the future.

I wish to repeat what I said at that meeting that Democracy has very little chance of succeeding in India until the divisions as they exist at the present moment are greatly modified. Since I spoke, you must all have read what a learned American student of Democracy is writing in the *Hindu* about the essentials for the success of representative Democracy, none of

which qualities we have at present in India, and what His Excellency the Viceroy said about the need for communal harmony. Mass conversions, by different religionists with the idea of increasing political strength, the removal of untouchability, not primarily, on its own merits, but with the object of augmenting material strength and preventing defections, these and other such measures which tend to fan the flame of bitterness between rival creeds are no real remedies. The question is one of very vital importance to us ; perhaps some of you might be able, by studying the past, to get an inspiration for the present, and teach a better way.

The second subject of which I would like some member to deliver a learned address is that of *dreams*. A man who pays any attention to dreams is usually regarded as unpractical ; and practical men do not perhaps wish to learn anything about dreams. A good dreamless sleep is undoubtedly the best thing for health; but a very great deal about the human organism has been learnt by studying even pathological conditions; and similarly it is quite likely that by a scientific study of dreams one may be able to gather very useful information about the human consciousness and—to be pragmatic once again—about the uses to which it could be put. For instance, have we not each of us in our dreams imagined ourselves to be behaving like some one else or to have done things that are beyond us in our wakening state? I am aware of the theory about dreams of psycho-analysts, but I beg respectfully to submit that they have not said anything like the last word about the human consciousness. Perhaps, by scientific study we may tumble on the discovery that the distinctions that we now make so much fuss about are somewhat unreal and that there is a real link between man and man about which we know very little at present. This discovery again, just as the study of the origins and progress of caste, might lead to greater kindliness and fellowship and hence improve the chances of peace.

I said in the beginning that I am outside the caste of scholars and scientists, almost an untouchable,—but it is deliberately that I have violated the main canon of a scholar or a scientist, which is to pursue the truth wherever it may lead and with no moral or other prepossession. I have a violent prepossession in favour of peace and good-will. The Great War seems to have taught us nothing; and we seem merrily, with tambour and harp, to be going down the path, the end of which might probably be a greater war and the destruction of modern civilization. If by your studies, you should discover the follies that have led to wars in the past or the wisdom that prevented them, you would be doing a great service. Perhaps, if it is discovered that Providence is as much concerned with you as with me ; that religious convictions are a matter between man and God and need not

separate brother (literal and metaphorical) from brother; that it is fear that separates,—taboo, caste, colour,—and *that* is mostly unreal; that life is an adventure where no one need expect for himself more than a sporting chance; and existence can be made full and interesting, for the young without war, which benefits only plutocrats and contractors; that the Psyche in us is real and vastly important, we may help,—scholars and laymen alike,—in creating a public opinion which will condemn communal strifes, wars, pride of race and other such ills that make this world undelectable, as being simply bad form, that no well-bred man need encourage or tolerate. Let us hope that the Mythic Society may win greater laurels through lectures and essays which may lead men to such thoughts and fashion them to a temper of peace and good-will.

I thank you, ladies and gentlemen, for having listened to these somewhat disjointed and perhaps Victorian observations with so much of good feeling and patience.

Mr. C. S. Balasundaram Iyer, in proposing a hearty vote of thanks to the Chairman, remarked Mr. Chandy's speech was most inspiring to the members of the Mythic Society. They were all sure they had secured a very learned Chairman for this year's Anniversary also. He heartily thanked Mr. Chandy for presiding over the Seventeenth Annual Meeting.

With three lusty cheers to His Highness the Maharaja of Mysore, the meeting came to a close.

THE MYTHIC SOCIETY, BANGALORE.

Statement of Accounts from 1st July 1926 to 30th June 1927.

RECEIPTS	AMOUNT Rs. A. P.	PAYMENTS	AMOUNT Rs. A. P.
1. Resident Members' Subscriptions	438 0 0	*1. Establishment:—*	
2. Moffussil Members' Subscriptions	691 14 0	Pay of the Staff ...	932 0 0
3. Life-Membership Donations	180 0 0	Liveries	29 10 0
4. Mysore Government Grants	2,100 0 0	Garden	127 12 0
5. Government of India Grant	300 0 0	Water Charges	4 4 0
6. Interest and Dividend earned	639 1 0	Lighting Charges ...	159 8 0
7. Sale of Journals, Catalogues, etc. ...	63 2 0	Electric Accessories purchased	16 4 0
8. Hall charges realized ...	9 0 0	*2. Journal:—*	
9. Advertisement charges realized	35 0 0	Printing	1,183 12 0
10. Recoveries from Servants	184 0 0	Postage	256 6 0
		3. Library:—	
		Books Purchased ...	461 0 0
		Subscriptions to newspapers	94 6 0
		Book-binding	48 12 0
		4. Fixed Deposit with the Bank of Mysore	300 0 0
		5. Miscellaneous:—	
		Repairs, whitewashing, etc.	230 0 0
		Advance to Servants ...	113 0 0
		Bicycle overhauling ...	13 6 0
		Stationery and miscellaneous ...	192 4 0
Total ...	4,640 1 0	Total ...	4,162 4 0
Add Opening Balance ...	140 15 1	*Add* Closing Balance ...	618 12 1
GRAND TOTAL ...	4,781 0 1	GRAND TOTAL ...	4,781 0 1

* *Details for Closing Balance:*

	Rs. A. P.
1. In the Bank of Mysore	607 4 10
2. With the Curator	2 1 1
3. With Branch Secretaries	9 6 2
TOTAL ...	618 12 1

Reserve Fund:—

	Rs.
Mysore State Loan Bonds	10,050
Bank of Mysore Share	100
Fixed Deposit	300
TOTAL Rs. ..	10,450

Bangalore,
8th Sept. 1927.

S. SRIKANTAIYA,
General Secretary & Treasurer.

OBITUARY

Ernst Hultzsc

Eugen Julius Theodor Hultzsc, who died early this year, was born in Dresden on the 29th March 1857. After a brilliant University career in the study of classics and oriental languages he took the Ph.D. degree from the University of Lipsia in 1879 when he was yet 22 years of age. He was connected with the Vienna University till 1866 where he had constant intercourse with Buhler.

Dr. Hultzsc came to India in 1884-5 on tour and was later appointed Epigraphist to the Government of Madras. He held the office till 1903 when he was appointed Professor of Sanskrit in Halle, Germany. His services to India will leave us grateful to him for ever.

Among the first important publications he made was an edition of *Baudhayanadharmasastra* and three valuable Reports on Sanskrit MSS. in Southern India. He was for some time Assistant Editor and later sole Editor of *Epigraphia Indica*. The three volumes of *South Indian Inscriptions* were published in 1890-1903. The monumental edition of the Edicts of Asoka in the *Corpus Inscriptionum Indicarum*, Vol. I, was published only two years ago, in the venerable old age of its author. His last paper *Samkhya und Yoga im Sisupalavadha* was published on his 70th Birthday.

Dr. Hultzsc was a great scholar of Sanskrit and Prakrit and was familiar with the chief Dravidian languages. His works are all characterized by critical acumen, unbiassed reasoning, scrupulous accuracy and solid learning. He was a gentleman and endeared himself to his friends and acquaintances. He will be remembered by Indian epigraphists as their *Guru* directly or indirectly. The world at large and India in particular are left under a deep debt of gratitude to him; and he will ever be remembered as one of the greatest scholars the world has produced.

OBITUARY

B. L. Rice

People of Mysore feel a personal loss in the death of Mr. B. L. Rice which occurred in London a few months ago.

Mr. Rice's prime of life was devoted for the benefit of Mysore. As Director of Public Instruction, he organized and laid the foundation of a sound system of Education on which has been built the present superstructure. After a brilliant propaganda in the field of Education, he turned his attention to the ancient remains of the country. He was the first Director of Archæology which department also owes its present efficiency to him. He was the author of a large number of works on the inscriptions in Mysore. His Reports are an asset to the country. The present position of Kannada literature and our knowledge of Mysore history are almost entirely due to his labours. Throughout his life, his interest for Mysore and Kannada continued.

Mysore and Coorg from the Inscriptions, Mysore Gazetteer (2 Volumes) and *Epigraphia Carnatica and Sravanabelagola Inscriptions* are the more important of his works. These must form the basis for any authentic history of Mysore that may hereafter be written.

HISTORY OF COW-PROTECTION IN INDIA. *

By L. L. Sundara Ram, Esq., M.A., F.R.Econ.S. (London.)

"Immemorial custom is transcendent law, approved in the sacred scriptures and in the codes of divine legislation; let every man, therefore, of the three principal classes who has a due reverence for the supreme spirit which dwells in him, diligently and constantly observe immemorial custom."[1] This dictum of Manu may be taken to be the motto for the present chapter. The history of cow-protection in India is one of the brilliant phases of our national strivings which we perpetuate to the end of the world. The cow occupied a prominent place in the outlook of the sons of Bharatavarsha ever since the Aryans set their foot on the Indian soil. Not merely the Aryans of India, but the members of the Aryan stock who will be found dispersed in foreign lands, especially the Indo-Iranians, have an exemplary veneration towards bovine cattle. Dr. Macdonnel admirably sums up the influence of the cow upon Indian life and thought:[2] "To no other animal has mankind owed so much, and the debt richly repaid with a veneration unknown in other lands. So important a factor has the cow proved in Indian life and thought that an exhaustive account of her influence from the earliest times of the world would form a noteworthy chapter in the history of civilization."

Such being the importance of the cow to us Hindus, it is but obvious that the history of cow-protection in India must have had a very glorious aspect, and we will not feel disappointed when we review the progress of the movement towards cow-protection in India.

We cannot afford to ignore the disturbing elements that obstruct the fair progress of the universal movement towards conserving cow life in India. We have already seen that at one time cows and bulls were thought to be fit animals to be slaughtered in sacrifice and several instances are available for us to show that they were actually slaughtered and slaughtered in abundance. We have seen again that the Muhammadans in India have a positive hatred towards the Hindu veneration of the cow, and the economic harm their masses have done to the country in taking a toll upon cattle life, especially the bovine cattle, whose fundamental importance to Indian agriculture can, in no way, be minimized. There have always been other dangers to cattle life in India which mean a loss to national interests. Pestilence, disease and draught take a regular toll upon cattle life in India. These

*A chapter from the writer's forthcoming monograph on *Cow Protection in India.*

1. *Laws of Manu*, Ch. I, verse 108.

2. *A History of Sanskrit Literature*, p. 110. 1905.

are not all. Take this significant passage from the pen of a distinguished Judge of the East India Company describing the situation of India towards the closing part of the eighteenth and the early decades of the nineteenth century.[1] "The Gochores, or cow-stealers, are among the cleverest of delinquents. They are chiefly Mussalmans and *Motchees*, sometimes joined and often encouraged by the Gowalas. This crime is particularly common in the neighbourhood of Calcutta and all great towns, where there is a demand for cow's flesh. The intermediate sales are conducted with such rapidity and skill; the animals are so defaced by mutilating their horns and ears, and by the additional marks placed on them, as well as by the loss of flesh, and there are so many different individuals employed in the sale, that the proofs of this become so tedious and frequently impossible." Besides this, there is the annual toll in the shape of cattle poisoning. "There is a class of English Medical Officers known as Chemical Examiners to Government, whose researches have largely contributed to the detection and conviction of cattle poisoners who, for centuries, have taken a heavy toll on the beast life of the land."[2] These are not exceptional practices, for in one prison at one time fifteen hundred leather-dressers have been confined for cattle poisoning.[3]

The aggregate harm from all these sources to Indian cattle life can never be of any negligible magnitude. But with all this serious handicap there is a universal craving in India for the conserving of cow life. Efforts were made with never flagging interest. Indian history is an unqualified testimony to this phase of our national endeavour. With all the bigotry of Indian Muslim rulers,—the more liberal among them, who form a majority, have not only abstained from killing cows but have promulgated positive ordinances in the cause of cow protection.

When we sketch the history of cow-protection in India, for that matter, of any movement in the world, we have to take the impressionistic effects of pageants and the inspiring grandeur of sights besides the spirit of the exhibitions. Weak points must not be put to any searching scrutiny, while from the numerical point of view the instances must not prejudice the effects of those pageants upon us. We have to gauge the broad general effects, and thus rest satisfied with a rapid survey of the memorable phases of the history of cow-protection in India.

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1. *Considerations on the Present Political State in India*, Vol. I, p. 129. By Alexander Fraser Tytler, Assistant Judge of the XXIV Purganas, London, 1815. 2 Vols. A rare set of interesting volumes.

2. *Beast and Man in India*, p. 109. *Cf.* Appendix XIX to the present monograph from which the magnitude of cattle-poisoning in India will be apparent.

3. *Beast and Man in India*, p. 108.

The efforts at cow-protection that were made successively throughout the general course of Indian History may, for the sake of convenience and clarity, be divided into two divisions, social and regal. By social legislation I mean the sum total of the efforts of society,—its prejudices, conventions and customs that will produce at times more beneficial and striking results than all the strivings of the rulers of a country. By regal legislation is to be understood the action of the State in the matter, in the shape of public ordinances, prohibitory promulgations, and, later on, at the present day, the embodiments of statutory legislation. In both these respects the history of cow-protection in India has a unique story to recount. We will now take up one by one the two kinds of legislation and trace their history, incorporating in our investigations for the first time the scattered remnants of social and regal effort as they come down to us from contemporary documents, which will enhance the clear impressiveness of our pageant.

The attitude of the Hindu religious lore and the general trend of Hindu traditional beliefs towards cow-life are the effective instruments in making way for the movement of genuine cow-protection. In a primitive age, Aryan India might have considered bovine cattle as fit offerings in sacrifice. But the more salutary phases of Indian outlook generally preserved intact the strivings of the generality of the Hindu population in protecting cow-life.

The cow has always inspired a certain amount of reverential awe in the minds of the ancient Aryans. As such it is but natural for us to expect in their sacred codifications injunctions of an imperative kind that go a long way in directing social action in respect of its relation to cow-life. The fundamental importance of bovine cattle to Indian agriculture of the Aryan times had had its effects upon the codifiers of our sacred texts who freely indulged in hyperboles and commendatory metaphors while describing the sanctity of cow life. In the light of the Hindu theories so far worked out in the earlier chapters, it will be apparent that the cow is regarded by our ancestors as the central point in creation and signifies the sustaining stamina of the world. I need not go here into details as regards the position of the cow in Indian sentiment, as it has been fully exposed elsewhere.* Suffice it to say that the cow is an earthly deity even more exalted at times than the Brahmans.

The Buddhist creed following in the wake of decadent Hinduism has contributed, along with its famous harbinger Jainism, not an insignificant quota towards sanctifying life on earth,—animal life including. We have found that Buddha applied an effective break to the trend of the Brahmanical

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* *Cf. Quarterly Journal of the Mythic Society, Bangalore* (Second Series), Vol. XVII, No. 4. pp. 277-293.

type of sacrifice. We have found that the Order consisted of Bhikkus who led exemplary lives of humaneness. We have found that animal hospitals were established throughout the length and breadth of the country. We have seen how animal slaughter has been stopped even in the royal kitchens of Asoka and Harsha Vardhana. Thus the *dharma* of the Buddhist creed all the more emphasized the sacredness of cattle life and in particular cow-life to the world.

The general legacy of Aryan civilization has been scrupulously preserved in all the ages through which India has passed, that even at the present day we show the same tenacity in preserving cow-life. I will now cite a few passages from contemporary travellers and inhabitants of India to prove that at no stage of Indian history has the generality of the population showed any signs of slackness in their endeavours to preserve cow-life from extinction or abuse.

Marco Polo, the Venetian traveller who was the first man to give us an account of the thirteenth century conditions of the East, emphasizes the veneration of the Hindus towards the ox in those days of excessive national ordeal and dishonour under the severe yoke of the aggressive Muhammadans who were notorious for their hatred of the Hindu beliefs in the sanctity of cow-life.[1] "The greater part of the idolatrous inhabitants of this kingdom show particular reverence to the ox; none will from any consideration be induced to eat the flesh of oxen. But there is a particular class of men termed *gaui*, who although many of them eat of the flesh, yet they dare not kill the animal; but when they find a carcase whether it had died a natural death or otherwise, the *gaui* eat it; and all descriptions of people daub their houses with cow-dung." Buchanan writing in his *Journal* about his journey through the Carnatic makes the same observations:[2] "The people of this part of the country consider the ox as a living God, who gives them their bread; and in every village there are one or two bulls, to whom weekly or monthly worship is performed. ....On the north of the Cauvery this superstition is not prevalent. The bull is there considered as respectable on account of Iswara having chosen one of them for his steed." Marco Polo observes again:[3] "Those amongst them who pay adoration to the ox, take with them when they go to battle, the hair of a wild bull, which they attach to the manes of their horses, believing its virtue and efficiency to be such, that every one who carries it about with him is secure from all kind of danger." Francois Bernier, travelling in India in the seventeenth century, observes the

1. *The Travels of Marco Polo, the Venetian*, p. 357. Everyman's Library, 1914, with an introduction by John Masefield.

2. Vol. II, p. 174, quoted *Ibid.*, foot-note.

3. *Loc. cit.*, pp. 365-366.

same phenomena even at the Mughal court. According to him,[1] "The *Gentiles* believe in a doctrine similar to that of the *Pythagoreans* with regard to the transmigration of souls, and hold it illegal to kill or eat animals, an exception being made, however, in favour of a few of the second tribe, provided the flesh is not that of the cow or the peacock. For these two animals they feel a peculiar respect, particularly for the cow, imagining that it is by holding to a cow's tail they are to cross the river which separates this life from the next. ....or this superior regard for the cow may more probably be owing to her extraordinary usefulness as being the animal which supplies them milk and butter (a considerable part of their aliment), and which may be considered a source of husbandry, consequently the preserver of life itself." Abbe Dubois, travelling in India towards the close of the eighteenth century, writes[2] that "to eat the flesh of a cow is an ineffaceable defilement. The bare idea of tasting it would be abhorrent to any Hindu." According to Tytler, the current notions among the people of Bengal in the early decades of the last century strongly favour the supreme value put upon cow-life.[3] "The life of a cow is of much greater consequence than the life of a Sooder; and in some parts of the Shasters is reckoned equal to that of a Brahman."

These passages from modern visitors of India have been selected to illustrate the general attitude of the Hindus towards the cow for a cogent reason. By the time these writers visited India, Muhammadan suzerainty over the country was established. "Super-organic evolution" of Herbert Spencer has begun her proselytising influence. The Muhammadans were deliberately trying to treat with contempt the sentiments of the Hindus regarding the cow. Cow-slaughters were openly perpetrated in the face of the Hindus. There is the force of the conqueror-nation's will behind all these phenomena. Yet during these momentous periods of Indian History, Indians never showed signs of disheartedness and indifference towards protecting cow-life. From this, when a retrospective glance is cast upon the ages past when Hindu kingdoms flourished, we must but imagine, and rightly too, that Hindu sentiment must have been quite inveterate as far as any infringement upon cow-life is concerned.

Regal legislation in India towards protecting cow-life has a memorable history of its own. Not only Hindu sovereigns, but Muhammadan conquerors of India have striven their best for the cause of cow-protection. Even when compared with the social legislation of Manu wherein he declares cow-killing to

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1. *Travels in the Moghul Empire*, pp. 326-327, by Francois Bernier. Translated by Archibald Constable. Second Edition. Revised by V. A. Smith, Oxford (1914).

2. *Hindu Manners, Customs and Ceremonies*, p. 193. Translated by H. K. Beauchamp.

3. *Considerations on the Present Political State of India*, Vol. I, p. 263 (1815).

be a *Upapathaka*,[1] and the Hindu law according to Vasistha[2] which inflicts a *Taptakrikhkhara* penance upon the perpetrator of cow-slaughter and allied legislation, the attitude and strivings, in general, of the state in India has a favourable comparison and at times a decided advantage over it. We will now set ourselves towards working the history of cow-protection in India from this line of investigation tracing regal legislation as far as available from the infancy of Indian civilization.

Indian history abounds in instances which show in clear terms the genuine efforts of the State towards protecting cow-life. The very constitution of the Hindu is surcharged with veneration towards the cow. "The genuine Hindu *Dharma* exacts from among other things veneration to the Brahmans, respect for the sanctity of animal life in various degrees, and especially veneration for horned cattle, pre-eminently the cow."[3] State action received powerful stimulus from this general legacy of the Aryan *Dharma*.

The regular history of India may be said to begin with the invasion of Alexander.[4] Prior to his invasions, even though we find several sources for writing a regular history of India, much of our material is of a legendary character losing much of precision and utterly unknown to chronological sequence. Thus while we are offered statements full of glosses, we find our endeavours generally futile, whatever may be the output of genuine research by the famous Indologists of the world, as far as chronology is concerned. The historical sense may be said to be the legacy of the Muhammadan conquerors of India.[5] In the other respect of social and economic history, we may say that ancient India may be given the first place among other countries, with the exception of Greece, to have preserved a wealth of material embedded in the epic lore and other sociological documents, only wanting to be unearthed by scholars after systematic study.[6] Thus when we consider the history of cow-protection we have only to deal mostly with the sentimental attitude of the ancient Aryans towards the sanctity of the cow. This we have seen in the earlier chapters.

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1. *Laws of Manu*, Ch. xi, verse 60.
2. *Vasistha Dharmasastra*, xxi. 23, S.B.E., Vol. XIV, p. 113.
3. *Oxford History of India*, p. 34. By V. A. Smith, Oxford (1920).
4. *Early History of India*, Introduction p. 1. By V. A. Smith, Oxford University Press, Third Edition. 1914.
5. *Mughal Administration*. Readership lectures of the Patna University, by Jadunath Sarkar.
6. The *Vedas*, especially the *Rig* and *Atharvana Vedas*, Manu, Kautilya, Sukra, and other authors supply us useful mines of information regarding the economic conditions of Ancient India, while the religious beliefs and practices of the Aryans, are to be found in the multitudinous hosts of *Brahmanas*, *Dharmasastras* and *Puranas*. These have not as yet been completely exhausted to give us a final and comprehensive picture of ancient Indian life.

Regular historical evidence regarding State interference is to be found only after Asoka. Buddhist endeavour has completely triumphed in proscribing all forms of Brahmanical sacrifice, and the general legacy of *Dharma*, having for its mainstay the principle of humaneness, was established. The task of Asoka was thus made easier. Especially after his experience of the Kalinga war, Asoka set himself towards the protection of animal life, even waiving the necessity of the royal kitchen to slaughter animals for doling out food and drink to the needy and the poor. His Rock and Pillar Edicts supply us with our main sources of information. Animal hospitals were established by Buddha throughout the country. Asoka made for the efficient organization of such charitable institutions and provided ample facilities for medical treatment to animals. Minor Rock Edict II emphasizes that "Respect for living creatures should be made firm." [1] Pillar Edict V is a lasting testimony to the fervent desires of Asoka in the cause of the protection of animal life,—his special legislation towards the infliction of cruelty upon the bulls during the process of castration is noteworthy, and may be quoted in full.[2] "Thus saith king Priyadarsin, Beloved of the gods :—When I had been consecrated twenty-six years, the following animals were declared unworthy of slaughter, namely, parrots, starlings, ruddy geese, swans, *Nandimukhas, Gelatas*, flying-foxes, queen-ants, female tortoises, boneless fish, *Vedaveyakas, Ganga-Paputakas*, skates, tortoises and porcupines, hare-like squirrels, twelve-antler stags, bulls set free, household vermins, rhinoceros, grey doves, village pigeons, and all quadrupeds which are neither used nor eaten. She-goats, ewes, and sows, which are with young or in milk, are unworthy of slaughter, and some of their young ones up to six months of age. Cocks shall not be caponed. Chaff containing living things shall not be burnt. Forests shall not be set on fire either for mischief or for the destruction of life. The living shall not be fed with the living. About the full moon of each of the three seasons and the full moon of Taisha, fish may neither be killed nor sold during three days, namely, the fourteenth (and) the fifteenth (of the fortnight) and the first (of the following fortnight), and certainly not on fast days. On the same days these and other species of life also shall not be killed in the elephant forest and fish preserves. On the eighth of (each) fortnight and on the fourteenth and fifteenth, on the Tishya and Punarvasu days, on the full-moon days of the three seasons,—on (such) auspicious days, bulls shall not be castrated : he-goats, rams, boars and such others as are consecrated shall not be castrated. On the Tishya and Punarvasu

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1. *Asoka*, Carmichael Lectures (1923), p. 330, by D. R. Bhandarkar, M.A., Ph.D. *Cf.* Rock Edict III. *Ibid.*, p. 278.

2. *Ibid.*, pp. 314-15.

days, on the full-moon days of the seasons, and during the fortnights connected with the full-moons of the seasons, the branding of horses and oxen shall not be done. Twenty-five jail deliveries have been effected by me, who am consecrated twenty-six years, just in that period." Rock Edict II[1] points to the establishment of *Pinjrapoles* which will be dealt with in greater detail subsequently, and repeats that "King Priyadarsin, Beloved of the gods, established medical treatment of two kinds,—that wholesome for men and that wholesome for animals." Kautilya describing the politico-economic conditions of Ancient India emphasizes the importance of the Ṣtate regulation of cattle life and meeting their necessities. Special Superintendents of Cows were to be appointed.[2] "He should superintend herds maintained for wages; herds surrendered for a fixed amount of dairy produce; useless and abandoned herds; herds maintained by a share in dairy produce;[3] classes of herds; cattle that strayed; cattle that are irrecoverably lost; and the amassed quantity of milk and clarified butter." This is in perfect accordance with the Aryan science of *Varta* generally addressed to be the fit occupation of the Vaisyas. "In *Varta* are treated interest, agriculture, commerce and preservation of cows."[4] With the progress of civic action and definite ideas about the province of governmental activity this piece of legislation was incorporated into State activities. Kautilya deals with a breadth of detail with these different methods of the art of cattle-keeping and enjoins upon the Superintendent to see that cows and calves are not put to any inconvenience as regards maintenance and general relief. Towards this effect he recommends a cattle census which would make for greater efficiency as regards the administrative functions of the Superintendent's Office. Selling of cows from among the herds is punishable with an amercement of one-fourth of the value of the cow. To improvise sufficient quantity of milk to the calf during the spring and the summer seasons cows must be milked only one time. In case of default, the cowherd's thumb shall be cut off. "Cattle in calf, a bull, or a milch cow, shall not be slaughtered. He who slaughters or tortures them to death shall be fined 50 panas."[5] Only fresh and boneless flesh of beasts is to be offered for sale by the butchers under penalty of amercements. In the case of Brahmani bulls set free, the owners must see that they are kept in proper control.[6] Hot spirits among the bulls must not be neglected

1. *Ibid.*, p. 276.
2. Bk. II, Ch. xxix. Shamasastri, 2nd Edn. pp. 155-159.
3. *Cf. Laws of Manu*, viii. 231.
4. *Sukraniti*, I. 311-312. Translated by Benoy Kumar Sirkar (Sacred Books of the Hindus). *Cf. Manu*, x. 116, where rearing of cattle is made one of the principal duties of Vaisya.
5. *Arthasastra*, Bk. II, Ch. xxvi.
6. *Sukraniti*, I. 622.

from being brought under control by "putting a string through the nose of a bull" and delinquency in this respect is punishable by state intervention.[1] This would mean that havoc capable of being caused by bulls set free is eliminated and thus public property is saved from destruction. This piece of legislation is laudatory in all its detail, and has all the efficiency which a scrutinizing government can bring about.

Along with this there is the other institution of the Office of the Superintendent of Agriculture, Forest Produce and Pastures.[2] The functions of these Superintendents are to see that there is a sufficient quantity of pastures and grasses available for cattle to feed upon. According to Sukra,[3] the place selected for the construction of a city, especially the king's capital must be "happily provided with resources in grasses and woods". Manu goes even further.[4] "On all sides of a village, a space, one hundred *dhanus* or three *sanyaa*-throws (in breadth) shall be reserved (for pasture), and thrice (that space) round a town." The *Dhanus* literally means a bow's length which is four *Hastas* or about six feet in length, and hence the provision for grass lands about every village must be two hundred yards on all sides which is, taking into consideration the requirements of the live-stock in the village, presumably sufficient if not abundant for rural requirements. This is in perfect agreement with what Sukra has to say[5] about the choice of the site for the construction of the metropolis which must be "happily provided with resources in grasses and woods". Kautilya urges that "pasture grounds shall be opened between any two dangerous places" for reasons of a political nature.[6] Such is the importance attached to pastures and natural grasses of the country in ancient India, that it is not too infrequently urged by ancient Indian diplomats and statesmen that one of the effectual weapons to be used in subduing a recalcitrant noble, or a dangerous enemy is to reduce their supply of grasses by burning all their pasture lands.[7]

When we trace the history of cow-protection during the period intervening the death of Asoka and the reign of Harshavardhana nearly eight and a half centuries, we will be impressed with the fact that it is not favourably comparable with the memorable period of State-action in the cause of cow-protection under the Mauryas. During this period the general movement towards cow-protection has several ebbs. In general we may say that Buddhism remained the moral guide of the populace, with several pitfalls under

1. *Arthasastra*, Bk. II, Ch. xix. (Shamasastri, p. 158.)
2. *Ibid.*, Chs. xxiv and xvii, and *Sukraniti*, II, 317-19 respectively.
3. *Sukraniti*, I. 425-28.
4. *Laws of Manu*, VIII. 237.
5. *Sukraniti*, I. 425-28.
6. *Arthasastra*, Bk. II, Ch. xxxiv. (Shamasastri, p. 172.)
7. *Sukraniti*, IV. vii. 740-41.

Pushyamitra Sunga, the Indo-Bactrian kings and even Samudragupta. The supremacy of Buddhism would mean the maintenance of the law of *Dharma* which has for its main-spring the glorious principle of *Ahimsa*. But under Pushyamitra and even under Samudragupta we find the *Aswamedha* sacrifice reviving which is but the indirect expression of Brahmanical influence upon the State.[1] Resort to sacrifice logically leads to the lowering of the ideas about the sanctity of animal life as was inculcated by Jainism and Buddhism. Again, under Mihiragula and the Hun invasions, Buddhism received a rude rocking of its moral endeavours and was practically crushed under the proud feet of the conquerors[2] even though, later on, it once again revived under the patronage of more liberal kings. Buddhism was unable to maintain its even tenor of life and hence it is natural for us to expect that during this period the general doctrine of *Ahimsa* and *Gorakshan* receded to the background.

But by the time we come to the reign of Harshavardhana, we again find a certain amount of relief and find State-action directing civic action in regard to the sanctity of animal life on earth. Hieun Tsang informs us that "he prohibited the taking of life under severe penalties and caused the use of animal food to cease throughout the five Indeas."[3] The strong incentive to this prohibition of taking animal life is to be found in Harsha's zeal towards Buddhism.

The death of Harshavardhana saw the disintegration of his empire which is the last of the Hindu empires in early Indian History that have reached their zenith successively under Asoka Maurya, Kanishka and Samudragupta. Then set in an era of anarchy and internecine warfare which are but the concomitants of an ever-warring congeries of principalities. During this period, we find the movement towards the protection of animal life beginning its career of waning. Instances of Hindu kings striving towards the preservation and sanctity of animal life are few and far between, while our sources of information are too meagre and fragmentary.

Kalhana in his *Rajatarangini* mentions that Gopaditya, a Kashmir king of the sixth century A.D., "did not tolerate except at sacrifices" "the killing of animals".[4] But the mention of the exception conceded to sacrifices leads us to presume that the legislation of the State is not drastic enough, at least to the desirable extent. But the effort is in itself praiseworthy. Again, in the case of Meghavahana, another Kashmiri king, we are informed by Kalhana[5] that "in the reign of this king, who hated killing like

1. *Early History of India*. By V. A. Smith. 3rd Edn. (1914), pp. 200 and 288, respectively.
2. *Ibid.*, pp. 203 and 319.
3. *Records*. Watters, I. p. 344. Quoted in the *History of Medieval Hindu India*, Vol. I, By Prof. C. V. Vaidya. *Cf.* Smith, *E. H. I.*, pp. 181 and 344.
4. I. 344. Stein, Vol. I, p. 51.
5. *Ibid.*, III. 7, *Ibid.*, I, 72.

a Jaina, the effigy of an animal in ghee was used in sacrifice (*Kratu*) and one in pastry at the 'offering to the spirits' (*Bhutabali*)." Jainism is emphatically triumphant here in preaching the most humane doctrine of *Ahimsa* and trumpeting the utter futility of sacrifices which are only practical expressions of misdirected outlay and effort. Again, take another passage from the *Rajatarangini*:[1] "On the lake reaching to the brink of the horizon, he established by his own authority a prohibition against the killing of fish and birds, which was to the end of the world." In this case, King Anantivarman of Kashmir (A.D. 855-6 to 883) building a city bearing his name on the banks of Vitasi "where she leaves the waters of the *Mahapadma* (lake)" orders prohibition of killing birds and fish—a supreme act in the cause of *Ahimsa*. We need not mention in this connection the sanctity of the cow which will be extremely superfluous.

The next is a glimpse we get of the efforts of Kumarapala, King of Gujerat, after his conversion to Jainism in A.D. 1159. Dr. Smith sums up his efforts in the following brilliant passage:[2] "In the twelfth century, Kumarapala, King of Gujerat in Western India, after his conversion to Jainism in A.D. 1159, took up the doctrine of the sanctity of animal life with the most inordinate zeal, and imposed severe penalties upon the violators of his rules. An unlucky merchant who had committed the atrocious crime of cracking a louse, was brought before the special court at Anhilwara and punished by the confiscation of his whole property, the proceeds of which were devoted to the building of a temple. Another wretch, who had outraged the sanctity of the capital by bringing in a dish of raw meat, was put to death. The special court constituted by Kumarapala had functions similar to those of Asoka's censors, and the working of the latter institution sheds much light upon the unrecorded proceedings of the earlier one." Kumarapala obviously had a strong desire to imitate his predecessor Asoka and in his attempts towards precision he lent himself to overdrawn acts of legislation which are open to objection.

(*To be Concluded.*)

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1. V. 119. Stein, Vol. I, p. 201.

2. *Early History of India*, p. 181. Smith obtains his information from Buhler's *Ueber Das Leben Des Jaina Monches Hemachandra* (1899).

SURYAPRAGNAPTI.

By Dr. R. Shama Sastry, B.A., Ph.D., M.R.A.S.

(Continued from Vol. XVI, No. 3.)

The Kula Nakshatras of New Moons.

The Śravishṭhi new moon happens in Kula Nakshatra named Magha according to popular view, but really in the Kula Nakshatra of Pushya. In popular parlance though new moon has passed and the Pratipad has come in, it is usual to call the next day still new moon day. Likewise,

The 2nd when $11 + \frac{14}{62} + \frac{18}{67}$ muhurtas remain in Anūrādha.

The 3rd when $29 + \frac{49}{62} + \frac{81}{67}$ „ in Viśākha.

The 4th when $24 + \frac{27}{62} + \frac{45}{67}$ „ in Anūrādha.

The 5th when $43 + 0 + \frac{58}{67}$ „ in Viśākha.

Then Paushi new moon may happen in Pūrvāshāḍha or Uttarāshāḍha according to popular view, but in reality in Mūla, Pūrvāshāḍha or Uttarāshāḍha.

The 1st when $28 + \frac{26}{62} + \frac{6}{67}$ muhurtas have passed in Pūrvāshāḍha.

The 2nd when $2 + \frac{19}{62} + \frac{19}{67}$ „ „ „

The 3rd intercalary when $11 + \frac{59}{62} + \frac{88}{67}$ have passed in Uttarāshāḍha.

The 4th when $15 + \frac{56}{62} + \frac{46}{67}$ muhurtas have passed in Pūrvāshāḍha.

The 5th when $19 + \frac{5}{62} + \frac{59}{67}$ „ „ in Mūla.

Then Maghi new moon may happen in Abhijit, Śravaṇa or Dhanishṭha, according to popular view, but really Uttarāshāḍha, Abhijit or Śravaṇa.

The 1st when $10 + \frac{26}{62} + \frac{8}{67}$ muhurtas have passed in Śravaṇa.

The 2nd when $3 + \frac{26}{62} + \frac{20}{67}$ „ in Abhijit.

The 3rd when $23 + \frac{39}{62} + \frac{85}{67}$ „ in Śravaṇa.

The 4th when $6 + \frac{37}{62} + \frac{47}{67}$ „ in Abhijit.

The 5th when $25 + \frac{10}{62} + \frac{60}{67}$ „ in Uttarāshāḍha.

The Phalguni new moon may happen in Śatabhishak or Pūrvābhādrapada according to popular view, but really Dhanishṭha, Śatabhishak or Pūrvābhādra.

The 1st when $6 + \frac{81}{62} + \frac{8}{67}$ muhurtas have passed in Pūrvābhādrapada.

The 2nd when $20 + \frac{4}{62} + \frac{22}{67}$ „ „ in Dhanishṭha.

The 3rd when $14 + \frac{44}{62} + \frac{86}{67}$ „ „ in Pūrvāshāḍha.

The 4th when $3 + \frac{17}{62} + \frac{49}{67}$ „ „ in Śatabhishak.

The 5th when $6 + \frac{52}{62} + \frac{62}{67}$ „ „ in Dhanishṭha.

Then Chaitra new moon may happen in Uttarābhādrapada, Revati, or Aśvini, according to popular view, but really Pūrvābhādrapada, Uttarābhādrapada or Revati.

The 1st when $37 + \frac{36}{62} + \frac{10}{67}$ muhurtas have expired in Uttarābhādra.
The 2nd when $11 + \frac{9}{62} + \frac{28}{67}$,, ,, ,,
The 3rd when $5 + \frac{49}{62} + \frac{37}{67}$,, ,, in Revati.
The 4th when $23 + \frac{22}{62} + \frac{50}{67}$,, ,, in Uttarābhādra.
The 5th when $27 + \frac{57}{62} + \frac{63}{67}$,, ,, in Pūrvābhādrapada.

The Vaishākhi new moon may occur in Bharaṇi or Kṛittika in popular view, but really Revati, Aśvini or Bharaṇi.

The 1st when $28 + \frac{41}{62} + \frac{11}{67}$ muhurtas have expired in Aśvini.
The 2nd when $2 + \frac{39}{62} + \frac{28}{67}$,, ,, ,,
The 3rd when $11 + \frac{54}{62} + \frac{38}{67}$,, ,, in Bharaṇi.
The 4th when $15 + \frac{27}{62} + \frac{51}{67}$,, ,, in Aśvini.
The 5th when $19 + 0 + \frac{64}{67}$,, ,, in Revati.

Belief and truth differ from each other in other cases. Accordingly the Śravishṭhi new moon may occur in Kula or Upakula constellations but not in Kulopakula constellations. Similarly Mārgaśirshi, Maghi, Phalguni and Ashāḍhi new moons happen either in Kula or Upakula. The rest happen only in Kulopakula.

What is to be specially remembered in this connection is this:— According to popular belief the new moon occurs in the 15th or 14th constellation from that in which full moon happens. Thus when Śravishṭhi full moon occurs in Dhanishṭha or Śravishṭha as it is also called, the new moon that precedes it must have been in Magha. Likewise the full moon in Magha is followed by new moon in Śravishṭha which is 15th from Magha; full moon in Uttarābhādrapada is followed by new moon in Uttaraphalguni, the 15th from the former. There is, however, the Abhijit between them. But as it comes in only for a short time with the moon, it may be dropped out of account. Accordingly the *Samavayanga Sūtra* says that in Jambudvīpa it is usual to deal with only 27 stars leaving off the Abhijit. Hence it is not included in calculation.

Hence Uttaraphalguni may be regarded as the 15th from Uttarābhādra. This is said regarding Bhādrapada month. But when the full moon takes place in Uttaraphalguni, then it will be followed by the new moon in Pūrvābhādrapada which is 14th from Uttaraphalguni. This is said regarding the month of Phālguna.

The full moon in Aśvini will be followed by the new moon in Chitra (Chaitri), which is 15th from Aśvini. This is according to popular view.

But in reality no new moon in the month of Āśvayuja occurs in Chitra. Similarly the full moon in Chitra will be followed by new moon in Aśvini according to popular view. But really no new moon in the month of Chaitra occurs in Aśvini. Hence the Sūtra must be taken to refer to Chaitramāsa in Aśvini.

The full moon in Kṛittika will be preceded by new moon in Viśākha which is 15th from Kṛittika in the reverse order. When full moon happens in Viśākha, it will be followed by new moon in Kṛittika, which is 14th from Viśākha, if counted back. This is said regarding Kārtika and Vaiśākha months.

The appearances of the constellations are thus described :—

Abhijit	...	...	Cow head.
Śravaṇa	...	...	Fish.
Dhanishṭha	...	...	Bird.
Śatabhishak	...	...	Flower.
Pūrvābhādra } Uttarābhādra }	...	...	Lake.
Revati	...	...	Boat.
Aśvini	...	...	Horse's head.
Bharaṇi	...	...	Bhaga.
Kṛittika	...	...	Knife.
Rohiṇi	...	...	Cart (Wheel).
Mṛigaśīrsha	...	...	Deer's head.
Ārdra	...	...	Drops of blood.
Punarvasu	...	...	Balance.
Pushya	...	...	Pendal.
Āślēsha	...	...	Flag.
Magha	...	...	Fort wall.
Pūrvaphalguni } Uttara ,, }	...	...	Palanquin.
Hasta	...	...	Hand.
Chitra	...	...	Face of a man.
Svāti	...	...	Cheva ? = Pearl.
Viśākha	...	...	Screw or a nail.
Anūrādha	...	...	Damani ? Umbrella.
Jyēshṭha	..	...	Necklace.
Múla	...	..	Elephant = Tusk.
Pūrvāshāḍha } Uttarāshāḍha }	...	...	Square ?

Constellations and Days and Shadow.

Uttarāshāḍha	Rainy 1st month	14 days.
Abhijit		7 ,,
Śravaṇa		8 ,,
Dhanishṭha		1 ,,

30 days of Śravaṇa month, shadow 2 padas and 4 angulas.

Dhanishṭha	Rainy 2nd month	14 days.
Śatabhishak		7 ,,
Pūrvābhādrapada		8 ,,
Uttarābhādrapada		1 ,,

30 days of Bhādrapada, shadow 2 padas and 8 angulas.

Uttarābhādrapada	Rainy 3rd month	14 days.
Revati		15 ,,
Aśvini		1 ,,

30 days of Āśvayuja, shadow 2 padas and 12 angulas or 3 padas.

Aśvini	Rainy 4th month	14 days.
Bharaṇi		15 ,,
Kṛittika		1 ,,

30 days of Kārtika, shadow 3 padas and 4 angulas.

Kṛittika	Hēmanta 1st month	14 days.
Rohiṇi		15 ,,
Mṛigaśirsha or Santhana		1 ,,

30 days of Mārgaśīrsha, shadow 3 padas and 8 angulas.

Mṛigasīrsha	Hēmanta 2nd month	14 days.
Ārdra		7 ,,
Punarvasu		8 ,,
Pushya		1 ,,

30 days of Pushya, shadow 4 padas.

On the last day of Pushya the shadow measures 4 padas.

Pushya Āśleshā Magha	Hēmanta 3rd month	14 days. 15 ,, 1 ,,
		30 days of Māgha, shadow 3 padas and 8 angulas on the last day.
Magha Pūrvaphalguni Uttaraphalguni	Hēmanta 4th month	14 days. 15 ,, 1 ,,
		30 days of Phālguṇa, shadow 3 padas and 4 angulas on the last day.
Uttaraphalguni Hasta Chitra	Grīshma 1st month	14 days. 15 ,, 1 ,,
		30 days of Chaitra, shadow 3 padas on the last day.
Chitra Svāti Viśākha	Grīshma 2nd month	14 days. 15 ,, 1 ,,
		30 days of Vaiśākha, shadow 2 padas and 8 angulas.
Viśākha Anūrādha Jyēshṭha & Mūla	Grīshma 3rd month	14 days. 15 ,, 1 ,,
		30 days of Jyeshṭha, shadow 2 padas and 4 angulas.
Mūla Pūrvāshāḍha Uttarāshāḍha	Grīshma 4th month	14 days. 15 ,, 1 ,,
		30 days of Āshāḍha, shadow 2 padas.

How to Find Out Ayanas.

When the length of the shadow on any lunar day (tithi) of any parva is sought to be known, then all the parvas of the previous cycle (Yuga) are counted, and multiplied by 15. To the product is added the sum of all the lunar days elapsed up to the lunar day in question. Then the sum is divided

by 186 (186 being the number of lunar days in an Ayana of 183 solar days) (solar diurnal circles). If the quotient happens to be an odd number like 1, 3, 5, 7 or 9, then the near Dakshiṇāyana is to be regarded as current. If even like 2, 4, 6, 8, or 10, then it is to be considered as Uttarāyaṇa.

If the sum is not divisible by 186 or a remainder remains, then the remainder is multiplied by 4 and divided by one-fourth of the total number of parvas, *i.e.*, 31. The quotient is the number of the angulas of the shadow cast, either more than the constant fixed for the Dakshiṇāyana or less than the constant fixed for the Uttarāyaṇa.

The reason for this is as follows :—

If in 186 lunar days 24 angulas of shadow are obtained, how many will they be in one day ?

186 days	...	...	24 angulas.
1 ,,	...	...	$\frac{24}{186} = \frac{4}{31}$ angulas.

This is the constant. This increases at the rate of $\frac{4}{31}$ angulas per lunar day upto 4 padas in the Dakshiṇāyana. On the first day, *i.e.*, Śrāvaṇa Bahula Pratipad, the shadow will be 2 padas; this is the minimum. Similarly in the Uttarāyaṇa commencing on the seventh lunar day of Māgha Bahula the shadow decreases from four padas at the rate of $\frac{4}{31}$ angulas per day to 2 padas at the end of Uttarāyaṇa. This is in the first year of the Yuga. In the second year the increase and decrease begin to take place on Śrāvaṇa Bahula 13 and Māgha Śukla 4. In the third year the dates are Śrāvaṇa Śukla 10 and Māgha Bahula 1. In the fourth year the increase begins on Śrāvaṇa Bahula 7 and the decrease on Māgha Bahula 13. In the fifth the dates are Śrāvaṇa Śukla 4 and Māgha Śukla 10. This is according to the ancient teachers (not mentioned in the Gāthas here).

If one asks what is the measure of shadow on the 85th parva day from the beginning of the yuga or cycle, we take 84th parva and find the measure on the 5th day after it. Now $84 \times 15 = 1260$ and add 5 to it. Hence it becomes 1265.

This divided by 186, is $= \frac{1265}{186} = 6 + \frac{149}{186}$ *i.e.*, 6 ayanas and 149 days ;

$149 \times \frac{4}{31} = \frac{596}{31} = 19\frac{7}{31} =$ One pada (12 angulas) $+ 7\frac{7}{31}$ angulas.

Now the 6th ayana is Uttara and the 7th is Dakshiṇa. Hence there is increase on the constant of two padas of shadow ; *i.e.*, the shadow measure is 3 padas $+ 7\frac{7}{31}$ angulas $=$ 3 padas $+$ 7 angulas $+$ 1 yava $+ \frac{25}{31}$ (One angula $=$ 8 yavas) on the 85th parva.

If it be asked what is the measure of the shadow on 97th parva panchami, we proceed as follows :—

Taking 96th parva, we multiply it by 15.

96 × 15 = 1440. With 5 it becomes 1445. Divided by 186, this gives ayanas. $\frac{1445}{186} = 7 + \frac{143}{186}$. 143 of the remainder is the number of days.

$\therefore 143 \times \frac{4}{81} = \frac{572}{81} = 18 + \frac{14}{81}$ angulas.

$=$ One pada + $6\frac{14}{81}$ angulas.

∴ The eighth being Uttarāyaṇa, the shadow has decreased from 4 padas, one pada and $6\frac{14}{81}$ angulas. Hence on the day the shadow $(4 \times 12 = 48) - 18\frac{14}{81}$ angulas = 2 padas and $5\frac{17}{81}$ angulas.

Similarly applying the same process we can find out the number of elapsed days in any ayana, provided the shadow measure above the constant of 2 padas is given. For example:

In the Dakshiṇāyana the shadow is 4 angulas above 2 padas. How many days have then elapsed?

The increase is $\frac{4}{81}$ angulas per day. Hence 4 angulas will be gained in $\frac{81}{4} \times 4 = 31$ days.

Likewise if 4 padas decrease by 8 angulas in the Uttarāyaṇa, then the number of days past will be $\frac{81}{4} \times 8 = 62$.

In the month of Āshāḍha, the shadow cast, when $\frac{1}{4}$ of the day is past or remains, is equal to the length of the thing casting the shadow.

Then the text goes on to describe the situations of the constellations north or south, etc., to the moon and the Yōjanas of the diurnal circles of the moon.

The deities of the constellations are Abhijit, Brahma; Śravaṇa, Vishṇu; then Vasu, Varuṇa, Aja, Pūsha, Gandharva, Yama, Agni, Prajāpati, Soma, Rudra, Aditi, Bṛihaspati, Nāga, Pitṛi, Bhaga, Aryama, Savitṛi, Tvashṭa, Vāyu, Indrāgni, Mitra, Indra, Nirriti, Apah, and Viśvedevas (all Vedic).

Then the text enumerates the names of the muhurtas:—

1	Rudra	11	Īśāna	21	Gandharva
2	Śrēyan	12	Tvashṭa	22	Agnivisya
3	Mitra	13	Bhavitātma	23	Śatavṛishabha
4	Vāyu	14	Vaiśravaṇa	24	Atapavan
5	Supita	15	Varuṇa	25	Amama
6	Abhichandra	16	Ānanda	26	Rinavan
7	Mahendra	17	Vijaya	27	Bhauma
8	Balavan	18	Viśvasena	28	Vṛishabha
9	Brahma	19	Prajāpatya	29	Sarvārtha
10	Bahusutya	20	Upasama	30	Rākshasa

Then the text enumerates the names of 15 days and nights, which are different from those given in the *Taittirīya Āranyaka.*

Then the text goes to say something of Râhu, the demon believed to be causing the eclipses of the sun and the moon. There are two Râhus; one Parva Râhu and another Dhruva Râhu. The Dhruva Râhu is of black disc (Vimāna) and moves 4 angulas below the moon. The moon's disc is divided into 62 parts. Of these, 2 parts are always uncovered by Rāhu. The rest 60 parts are covered by Rāhu at the rate of 4 parts a day during the 15 days of the dark half of the month and uncovered in the other half at the same rate. The time taken by the 4 parts to increase or decrease is what is called Tithi, lunar day.

As regards Parva Rāhu, something will be said later on. Then the text enumerates the names of the 30 tithis of a month; and mentions the names of the Goṭras of the 28 stars, such as Garga, Mandalya, Sankhayana, etc.

The stars and their situation with reference to the moon's ecliptic circle :—

Of the 28 constellations there are some which are situated to the south, and some to the north, and a few both to the north and the south of the moon's ecliptic.

Mṛigaśirah, Ārdra, Pushya, Āślēsha, Hasta and Mūla, these six are to the south, and outside the 15th circle of the moon.

Abhijit, Śravaṇa, Dhanishṭha, Śatabhishak, Pūrvābhādrapada, Uttarā-bhādrapada, Revati, Aśvini, Bharaṇi, Pūrvaphalguni, Uttaraphalguni and Svāti, these twelve are to the north; when the moon is in conjunction with any of these, he may be in any one of his circles.

Kṛittika, Rohiṇi, Punarvasu, Magha, Chitra, Viśākha, Anūrādha, and according to some Jyēshṭha also are situated both north and south and partake of both the sides (Pramarda Yoga or Ubhaya-yōgi).

Uttarāshāḍha and Pūrvāshāḍha are to the south but unite with the moon in Pramarda Yoga, *i.e.*, outside the circle. Jyeshṭha alone has Pramarda Yoga with the moon.

The Lunar Diurnal Circles.

There are fifteen lunar diurnal circles. There are some circles which always pass through some constellations. There are others through which the sun, the moon and the stars also pass. There are a few circles through which the sun never moves.

The following eight circles always pass through some constellations :—

The first circle passes through (1) Abhijit, (2) Śravaṇa, (3) Dhanishṭha, (4) Śatabhishak, (5) two Bhādrapadas, (7) Revati, (8) Aśvini, (9) Bharaṇi, (10) & (11) two Phalgunis, and (12) Svāti.

The 3rd	circle through	Punarvasu and Magha.
The 6th	,,	Kṛittika
The 7th	,,	Rohiṇi and Chitra.

The 8th circle though	Viśākha
The 10th ,,	Anūrādha
The 11th ,,	Jyeshṭha
The 15th ,,	Mṛigaśirah, Ārdra, Pushya, Āślesha, Hasta, Mūla and the two Āshāḍhas.

Of these, the first six are, however, outside the fifteenth circle; still as they are very near to it, they are counted as such. Hence nothing of inconsistency in the statement.

Similarly the following seven out of the fifteen circles do not pass through any constellation :—The second, fourth, fifth, ninth, twelfth, thirteenth and the fourteenth circle.

The following four are common to both the sun, the moon and the constellations :—The first, the second, the eleventh and the fifteenth circle.

The following five are beyond the sun's path :—The sixth, seventh, eighth, ninth and the tenth circle.

Accordingly it is clear that the first, second, third, fourth, fifth, eleventh, twelfth, thirteenth, fourteenth, and the fifteenth, are common to the sun also.

The rest, sixth, seventh, eighth, ninth, and tenth are peculiar to the moon *i.e.*, the sun never passes through them.

Now in those cases in which the sun's ecliptic circle passes beyond the moon's, the distance between them is thus determined by ancient teachers :—

To understand this we have to know the rate of increase or decrease in the circumference of the sun's and the moon's diurnal circles. The circumference of the sun's diurnal circles increases at the rate of $2\frac{48}{61}$ yōjanas per circle from the innermost circle. Hence in 183 days, the total increase or decrease from the outermost diurnal circle is $\frac{170}{61} \times 183 = 510$ yōjanas.

Now for the moon it is $509\frac{25}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjanas, for the increase or decrease in one day for the moon is $36\frac{25}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjana.

Hence in 14 days it is $(36 + \frac{25}{61} + \frac{4}{7}$ of $\frac{1}{61}) \times 14 = \frac{1551}{427} \times 14 = \frac{31102}{61} = 509 + \frac{58}{61}$ yōjanas.

Now as stated in the Jambu-prajñapti, the distance between any two diurnal circles of the sun is 2 yōjanas only, and the distance between any two diurnal circles of the moon is $35 + \frac{30}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjana. The same *plus* the measure of the respective diameters of circles of the sun and the moon becomes the measure of the rate in the sun's or the moon's increase or decrease per respective diurnal circle; for example, the measure of the diameter of the sun's circle is $\frac{48}{61}$ yōjanas. Hence $2 + \frac{48}{61}$ yōjanas is the rate of increase or decrease per diurnal circle of the sun. Likewise the distance

between any two diurnal circles of the moon *plus* the diameter of his circle is the rate of increase or decrease per diurnal circle of the moon.

Thus the total of increase or decrease at the final diurnal circle of the sun or the moon is the distance between any two diurnal circles of the sun or the moon.

Now if it is desired to deduce the rate of increase in the diameter of the diurnal circles of the sun or the moon from the total increase or decrease, the following is the method, as stated by ancient teachers:—

Now the sun's total of increase in 183 days is, as already shown, 510 yōjanas. Hence in one day it is $\frac{510}{183} = 2\frac{48}{61}$ yōjanas per circle.

Likewise for the moon:—

The total increase in 14 lunar days is $509\frac{58}{61}$.

Hence in one day, $509\frac{58}{61} \div 14 = 36 + \frac{25}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjana.

Now the first diurnal circle of the sun is completely enclosed in the moon's diurnal circle; but $\frac{8}{61}$ parts of the moon's still remain outside, for the sun's is less than the moon's by $\frac{8}{61}$ parts.

Then in the interval before the second diurnal circle of the moon there can be 12 sun's paths. Now the distance between two moon's paths is $35 + \frac{30}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjanas or $\frac{2165}{61}$ times one-sixtieth parts of a yōjana.

The sun's increased circle is $2\frac{48}{61}$ yōjanas or $\frac{170}{61}$ times one-sixtieth parts of a yōjana.

Dividing the former by the latter, we have $\frac{2165}{170} \times \frac{61}{61} = 12\frac{125}{170}$; that is, twelve circles of the sun can be enclosed in the interval before the 2nd moon's circle. There remain still $\frac{125}{61} + \frac{8}{61} = 2$ yōjanas $+ \frac{11}{61}$ of a yōjana $+ \frac{4}{7}$ of $\frac{1}{61}$ of a yōjana.

Taking this away from $2\frac{48}{61}$ of another diurnal circle measure of the sun as equal to $2\frac{48}{61} - (2\frac{11}{61} + \frac{4}{7})$, we have $\frac{36}{61} + \frac{3}{7}$ of $\frac{1}{61}$ yōjanas of the sun mingled with the second diurnal circle of the moon.

(i) Now the rate of increase per moon's circle is $36 + \frac{25}{61} + \frac{4}{7}$ of $\frac{1}{61}$.

(ii) and the distance between two circles of the moon is $35 + \frac{30}{61} + \frac{4}{7}$.

Hence i—ii is the diameter of the moon's circle, *i.e.*, $(36 + \frac{25}{61} + \frac{4}{7})$ of $\frac{1}{61}$ $-(35 + \frac{30}{61} \div \frac{4}{7}) = \frac{55}{61}$ yōjanas.

Hence deducting the remainder, $\frac{36}{61} + \frac{3}{7}$ of $\frac{1}{61}$ of the sun's 13th circle from the 2nd circle of the moon, $\frac{55}{61} - (\frac{36}{61} + \frac{3}{7}) =$ we have $\frac{19}{61} + \frac{4}{7}$ of the moon's circle outside the sun's circle.

Now for the space between the second and the third circles of the moon, we have $35 + \frac{30}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjanas. In this space there will be enclosed, as already pointed out, 12 circles of the sun, leaving $2 + \frac{8}{61} + \frac{4}{7}$ of $\frac{1}{61}$

yōjanas in space, which with the remainder $\frac{19}{61}+\frac{4}{7}$ of the second circle will amount to $2+\frac{28}{61}+\frac{1}{7}$ of $\frac{1}{61}$ yōjanas; *i.e.*, after the second circle of the moon and before his third circle there will be 12 solar paths and next to it $2+\frac{28}{61}+\frac{1}{7}$ yōjanas of the sun's circle will be enclosed in the space itself, leaving $2\frac{48}{61}-(2\frac{23}{61}+\frac{1}{7})=\frac{24}{61}+\frac{6}{7}$ yōjanas to mingle with the moon's third diurnal circle. Deducting this from the third circle of the moon as $\frac{55}{61}-(\frac{24}{61}+\frac{6}{7})$, we have $\frac{31}{61}+\frac{1}{7}$ of $\frac{1}{61}$ of the moon's third circle outside.

Again, in the next space there will be 12 paths of the sun $+\,2+\frac{8}{61}+\frac{4}{7}$ of $\frac{1}{61}$ yōjanas which with the remainder of the previous circle $\frac{31}{61}+\frac{1}{7}$ will amount to $2+\frac{34}{61}+\frac{5}{7}$; *i.e.*, after the third circle there will be 12 solar paths and thereafter the thirteenth will after passing 2 yōjanas come in the space between the third and the fourth circles to the extent of $\frac{34}{61}+\frac{5}{7}$ of $\frac{1}{61}$ yōjanas, requiring $\frac{18}{61}+\frac{1}{7}$ of $\frac{1}{61}$ yōjanas for its completion.

Hence deducting $\frac{18}{61}+\frac{1}{7}$ from $\frac{55}{61}$ of the moon's fourth circle, we have $\frac{55}{61}-(\frac{18}{7}+\frac{1}{7})=\frac{42}{61}+\frac{5}{7}$ yōjanas of the moon's fourth circle stretching out.

Again, in the space between the fourth and the fifth circles there will be 12 solar paths $+\,2+\frac{3}{61}+\frac{4}{7}$ of $\frac{1}{61}$ yōjanas, which with the previous remainder $\frac{42}{61}+\frac{5}{7}$ will amount to $\frac{46}{61}+\frac{2}{7}$ yōjanas; *i.e.*, there will be 12 paths and after that, there will be a solar path which passing 2 yōjanas will project in the space between the fourth and the fifth circles to the extent of $\frac{46}{61}+\frac{2}{7}$ of $\frac{1}{61}$ yōjanas. Deducting this from the solar circle, we have $\frac{48}{61}-(\frac{46}{61}+\frac{2}{7})=\frac{1}{61}+\frac{5}{7}$ of the solar circle mingled with the moon's fifth diurnal circle. Hence $\frac{55}{61}-(\frac{1}{61}+\frac{5}{7})=\frac{54}{61}+\frac{2}{7}$ of $\frac{1}{61}$ of the moon's will be outside.

Thus five lunar internal diurnal circles will be mingled with the solar circles and there will be 12 solar paths in each of the four interval spaces.

Now we shall proceed to deal with the next five lunar circles (from sixth to the tenth) which do not come in contact with the solar paths. The space between the fifth and the sixth lunar paths is $35+\frac{80}{61}+\frac{4}{7}$ of $\frac{1}{61}$ which with the previous remainder $\frac{54}{61}+\frac{2}{7}$ of $\frac{1}{61}$ will amount to 2219 of $\frac{1}{61}$ parts.

Likewise the solar space is $2\frac{48}{61}$ yōjanas or $\frac{170}{61}$ yōjanas. Hence $\frac{2219\times 61}{170\times 61}=13\frac{9}{170}+\frac{6}{7}$ of $\frac{1}{61}$ (left before unnoticed). That is, there will be in this space 13 solar paths and above those paths there will be $\frac{9}{61}$ yōjanas and $\frac{6}{7}$ of $\frac{1}{61}$ yōjanas: beyond this there will be the sixth lunar path measuring $\frac{56}{61}$ yōjanas. Beyond this and before the next solar path measuring $\frac{48}{61}$ yōjanas, there will be $\frac{56}{61}+\frac{1}{7}$ of $\frac{1}{61}$ yōjanas. Beyond this there will be a solar path. Beyond that there will be space measuring $35+\frac{30}{61}+\frac{4}{7}-(\frac{104}{61}+\frac{1}{7}$ of $\frac{1}{61})$ yōjanas before the next lunar circle. Then there will be

12 solar paths; and adding together the fractions, we have in this space also 13 solar paths; beyond the thirteenth solar path and before the next lunar path there will be space to the extent of $\frac{21}{61} + \frac{8}{7}$ of $\frac{1}{61}$ yojanas. Then the seventh lunar path. Beyond that there will be within a distance of $\frac{44}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjanas another solar path. Thereafter there will be space again to the extent of $35 + \frac{80}{61} + \frac{4}{7} - (\frac{92}{61} + \frac{4}{7}$ of $\frac{1}{61})$ yōjanas. Here also in this space there will be 12 solar paths; and adding together fractions, we have here also 13 solar paths and beyond the thirteenth solar path and before the eighth lunar path there will be space to the extent of $\frac{38}{61}$ yōjanas. Then the eighth lunar path. Beyond this there will be within a distance of $\frac{83}{61}$ yōjanas a solar path. Then again there will be space to the extent of $35 + \frac{80}{61} + \frac{4}{7}$ of $\frac{1}{61} - (\frac{81}{61}) =$ $34 + \frac{10}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjanas. Again 12 solar paths in this space; and adding the fractions 13 solar paths as before. Then beyond the thirteenth solar path and before the ninth lunar path there will be $\frac{44}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjanas as space. Then the ninth lunar path. Beyond that there will be within the space of $\frac{21}{61} + \frac{8}{7}$ of $\frac{1}{61}$ yōjanas a solar path. Then again there comes the usual lunar space to the extent of $35 + \frac{80}{61} + \frac{4}{7} - (\frac{69}{61} + \frac{8}{7}$ of $\frac{1}{61})$ yōjanas. Here again adding the fractions, we get 13 solar paths. Beyond the thirteenth solar path and before the tenth lunar path there will be space to the extent of $\frac{56}{61} + \frac{1}{7}$ of $\frac{1}{61}$ yōjanas. Then there comes the lunar path (Chandra-maṇḍala, moon's disc) and beyond that there will be within a space of $\frac{9}{61} + \frac{6}{7}$ of $\frac{1}{61}$ yōjanas the solar path (Sūryamaṇḍala, sun's disc or solar path). Then again there comes the usual space to the extent of $35 + \frac{80}{61} + \frac{4}{7}$ $- (\frac{57}{61} + \frac{6}{7})$ yōjanas.

Then again 12 or rather 13 solar paths, adding fractions together. Then beyond the thirteenth solar path and before the eleventh lunar path there will be space to the extent of $\frac{67}{61} + \frac{5}{7}$ of $\frac{1}{61}$ yōjanas.

Thus there are five lunar paths not connected with the solar paths, and there are thirteen lunar paths in each of the six intervening spaces.

Now $\frac{54}{61} + \frac{2}{7}$ of $\frac{1}{61}$ of the eleventh lunar path are found out of the solar path; $\frac{1}{61} + \frac{5}{7}$ of $\frac{1}{61}$ of that path are found connected with the solar $\frac{46}{61} + \frac{2}{7}$ of $\frac{1}{61}$ of the eleventh solar path are out of the eleventh lunar path. Hence the next lunar space is equal to $35 + \frac{80}{61} + \frac{4}{7} - (\frac{46}{61} + \frac{2}{7}) = 34 + \frac{45}{61} + \frac{2}{7}$ of $\frac{1}{61}$. Hence there will be only 12 solar paths with a space of $\frac{79}{61} + \frac{2}{7}$ of $\frac{1}{61}$ yōjanas separating the twelfth solar path from the twelfth lunar path which is thus found in space separated from the next solar path by $\frac{42}{61} + \frac{5}{7}$ of $\frac{1}{61}$ yōjanas. Hence only $\frac{13}{61} + \frac{2}{7}$ of $\frac{1}{61}$ of it come in contact with

the solar path. Hence the solar path stretches out of the twelfth lunar path to the extent of $\frac{84}{61} + \frac{5}{7}$ of $\frac{1}{61}$ yōjanas. Then there comes again the lunar space to the extent of $35 + \frac{80}{61} + \frac{4}{7} - (\frac{34}{61} + \frac{5}{7}) = 34 + \frac{56}{61} + \frac{6}{7}$ of $\frac{1}{61}$ yōjanas. Here also the space includes twelve solar paths leaving $\frac{90}{61} + \frac{6}{7}$ of $\frac{1}{61}$ yōjanas beyond the twelfth solar path and separating the thirteenth lunar path which is found in space beyond the solar path to the extent of $\frac{81}{61} + \frac{1}{7}$ of $\frac{1}{61}$ and in connection with it to the extent of $\frac{24}{61} + \frac{6}{7}$ of $\frac{1}{61}$ yōjanas. Hence the solar path stretches out of the thirteenth lunar path to the extent of $\frac{23}{61} + \frac{1}{7}$ of $\frac{1}{61}$ yōjanas. Hence the next lunar space $35 + \frac{80}{61} + \frac{4}{7}$ of $\frac{1}{61}$ is lessened by this amount, *i.e.*, $\frac{28}{61} + \frac{1}{7}$ of $\frac{1}{61}$. Here also there are 12 solar paths and beyond the twelfth there is within a distance of $\frac{102}{61} + \frac{8}{7}$ of $\frac{1}{61}$ yōjanas the fourteenth lunar path. This path is in space out of the solar path to the extent of $\frac{19}{61} + \frac{4}{7}$ of $\frac{1}{61}$ yōjanas. The remaining $\frac{36}{61} + \frac{8}{7}$ of $\frac{1}{61}$ yōjanas are in contact with the solar path. Hence $\frac{11}{61} + \frac{4}{7}$ of $\frac{1}{61}$ of the solar path are beyond the fourteenth lunar path. Hence the next lunar space is equal to $35 + \frac{80}{61} + \frac{4}{7} - (\frac{11}{61} + \frac{4}{7}) = 35 + \frac{19}{61}$ yōjanas. Here also there will be 12 solar paths. And beyond the twelfth solar path there will be the fifteenth lunar path at a distance of $\frac{514}{61}$ yōjanas. This lunar path falls in space separated from the last solar path by $\frac{8}{61}$ yōjanas. The remaining $\frac{48}{16}$ parts are in contact with the solar path.

Thus the five lunar paths from the eleventh to the fifteenth are connected with the solar paths; and in each of the four intervening lunar spaces there are 12 solar paths.

Tithi or Lunar Day.

A Tithi or lunar day is equal to $\frac{61}{62}$ parts of a day. Hence a day being divided into 30 muhurtas, a tithi will be equal to $\frac{61}{62} \times 30$ muhurtas $= 29\frac{32}{62}$ muhurtas.

The Tithis are of two kinds: (1) day tithis and night tithis; both kinds are divided into a week of five lunar days, called (1) Nanda, (2) Bhadra, (3) Jaya, (4) Tuchchha, (5) Pūrṇa in the case of day tithis; and (1) Ugravati, (2) Bhogavati, (3) Yaśōmati, (4) Sarvasiddha, (5) Śubhanāma, in the case of night tithis. Thus three weeks of day tithis and three weeks of night tithis will make fifteen complete lunar days.

Success in work undertaken on lunar days with special diet:—Curd diet on the Kṛittika day will enable a man to succeed in his works. Rōhiṇi, flesh; Mṛigaśirah, flesh of wild beasts; Ārdra, butter; Punarvasu, clarified butter; Pushya, milk; Āślēsha, the flesh of Dīpaka; Magha, Kasoti; Pūrva-phalguni, the flesh of Medhaka, an animal; Uttara, the flesh of Naksi;

Hasta, Vardana (?) ; Chitra, Mudgasupa ; Svāti, fruits ; Viśākha, Asitti (?); Anūrādha, vegetables ; Jyēshṭha, Lathiya (?) ; Pūrvāshāḍha, Amalaka (Jujube) ; Uttarāshāḍha, Bilva ; Abhijit, flowers ; Śravaṇa, milk ; Śatabhishak, dalls ; Pūrvābhādra, Karila (?) ; Uttarābhādra, pig's flesh ; Revati, fish ; Aśvini, the flesh of Tittiri bird ; Bharaṇi, rice.

6

CHANGE OF SEX IN FICTION.

By Kalipada Mitra, Esq., M.A., B.L.

Change of sex is not an unfamiliar motif in Hindu fiction. It is believed that *Karma* determines sex in this and future birth. In the ancient literature of Buddhism, Jainism and Hinduism, we find good action associated with the male principle, and evil action with the female. As a fruit of her good act in this birth the sex of a virtuous woman gets changed even in this birth or in a future. Similarly a man for having committed a sexual sin in this birth is punished in many subsequent rebirths by castration if he is born as a male, or by being born as a hermaphrodite, or as a female.

In the *Sakkapañha Suttanta* (XXI) of the *Digha Nikâya* (*P.T.S., D.N.* Vol. II, p. 271) we read: "Idh'eva Bhante Kapilavatthusmiṃ *Gopikâ nâma Sâkyadhîtâ ahosi* Buddhe pasannā dhamme pasannā saṃghe pasannā sīlesu paripurakārinī. Sā itthicittaṃ virājetvā purisacittaṃ bhāvetvā cāyassa bhedā paraṃ maraṇā sugatiṃ saggaṃ lokaṃ uppannā devānaṃ Tāvatiṃsā-naṃ sahavyataṃ *aṃhākaṃ puttattaṃ ajjhupagatâ.* Tatrāpi naṃ evaṃ jānanti: *Gopako devaputto Gopako devaputto.*" *

We find, therefore, that Gopikā, the daughter of the Sākyas, for her faith in the Buddha, Dharma and the Saṁgha, and for her perfect observance of the Sīlas (precepts) was born as a son (male) and named Gopaka, the son of a god (as after her fleshly birth she was born in the Tāvatiṃsa heaven of the gods).

She says, reviewing her previous birth—

Itthi hutvâ svajja pumo' mhi devo
dibbehi kâmehi samangî bhûto. (p. 273.)

In *saṃsâra* (rebirths) does a woman become a woman in all subsequent rebirths, and a man a man? "No," says the Buddha, "no such thing exists." In the *Ubbaripetavatthu-kathâ* (P. V. A. II, 13) he says: "*ayaṃ niyamo saṃsâre n'atthi yaṃ itthi itthi yeva hoti puriso puriso evâ ti dassento*

Ahu itthi ahu puriso pasuyoniṃ pi agamâ
evaṃ etaṃ atîtânaṃ pariyanto na dissatîti"

The commentator explains: *Tvaṃ kadâci itthipi ahosi kadâ ci puriso pi ahosi*.........(Sometimes you were a woman, sometimes a man......)

In the story of Isidāsī in the Therīgāthā she recounts the incidents of her seven previous births:—

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* Italics are mine.

Nagaramhi Erakakacche suvaṇṇakâro ahaṃ bahutadhano ı
yobbanamadena matto *so paradâraṃ âsevihaṃ* ıı
so'haṃ tato cavitvā nirayamhi apacissaṃ ciraṃ ı
pakko tato ca uṭṭhahitvā makkaṭiyā kucchim akkomuṃ ıı
sattāhaṃ jātakammaṃ mahākapi yūthapo *nillacchesi*
kāṇāya ca khañjāya ca elakiyā kucchim akkomiṃ
dvādasavassāni ahaṃ *nillacchito* dārake paribahitva

* * *

so'haṃ tato cavitvā govānijakassa gavīyā jāto
vaccho lākhātaṃbo *nillacchito* dvādase māse

* * *

so'haṃ tato cavitvā vīthiyā dāsiyā ghare jāto
n'eva mahilā na puriso yathāpi gatvāna paradāraṃ
tiṃsativassaṃhi mato sākaṭikakulaṃhi *dârikâ jâtâ.*

* * *

"In my previous birth I had been a rich goldsmith; inebriated with the intoxication of youth I knew another's wife (committed adultery). For this sin long did I dwell in hell; then was I reborn as a monkey, on the seventh day the leader of the herd, the great monkey, castrated me (*commy. purusa-lacchanabhūtâni vîjâni nicchasi*, took out the seeds, the signs of a male). In the next birth I was born as a goat; castrated did I carry the boys on my back for twelve years. Then was I born as a bull, they castrated me in the twelfth month. Then was I born in the house of a female street servant, neither a male nor a female (hermaphrodite). In the next birth I was the daughter of a poor carter.....Thus did I reap the fruits of adultery committed in a previous birth."

Very much like the above story reads the account of the seven former births of Princess Rūjā in the *Mahânâradakassappa Jâtaka* (No. 544: *Cambridge Translation*, Vol. VI, p. 120). Born as the son of a smith in the city of Rājagaha he went about corrupting other men's wives, for which sin, after suffering the tortures of Roruva hell for a long time, he became a castrated goat in Bheṇṇākaṭa; in the next birth he was born as a monkey, but his testicles were bit off by the leader of the herd; in other births he was a castrated ox; born among the Vajjī people he was neither man nor woman; then was he born as a *nymph* in the Nandana wood. Says she: "Till the sixth birth is past I *shall not be free from my female sex.* But there is my seventh birth, O king,—a prosperous son of the gods, I shall be born at last as *a male deity* in a divine body (as the fruit of the good which I did in Kosāmbi)."

In the *Dhammapada Commentary** (III, 9) in the story "Mother of Two and Father of Two," Elder Soreyya was, in his lay life, a treasurer. He looked on Mahā Kaccāyana whose hue of the body was golden and desired that the latter might be his wife. For this sinful thought he was himself transformed into a woman, and in course of time bore sons. His affection for sons when a mother was stronger than that when a father.

In a much later book, the *Telakaṭâha gâthâ* of the twelfth century A.D. (edited by E. R. Goonaratne. *J.P.T.S.*, 1884) the idea also occurs :

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Itthī na muñcati sadā puna itthi bhāvaṃ ।
Nârí sadâ bhavati so puriso parattha ॥
yo ācareyya paradāraṃ alaṅghanīyaṃ ।
Ghorañca vindati sadā vyasanañc' anekaṃ ॥

The same idea also occurs in the *Pañcagati dípanaṃ* (p. 159 ; *J.P.T.S.*, 1884), Slokas 93, 94 :

Paradāresu saṃsaṭṭhaṃ yo na vāreti mānasaṃ ।
Sārajjeti c-anaṅgesu *nârittaṃ jāti so pumâ* ॥
yā jigucchati narattaṃ susīlā mandarāginī ।
niccaṃ pattheti puṁbhāvaṃ *sâ nârí narattaṃ vaje* ॥

In the *Ananusociya-Jâtaka* (No. 328)†, however, we read : "Now at this time a certain holy man passing from the Brahma world was born again in the form of a young girl in a town in the kingdom of Kāsi, in the house of a Brahmin worth eighty crores, and the name given her was Sammillabhāsinī... And since no thought of evil was ever suggested to her by the power of sinful passion, she was perfectly pure." Here the idea of punishment inherent in the change of sex is absent ; a suitable wife absolutely devoid of sexual passion was required to match the Bodhisatta who had no desire for married life at all.

In the story of Rūpavatī in the *Divyâvadâna* (ed. by Cowell and Neil) pp. 473-474, we find that the sex of Rūpavatī is changed and she forthwith becomes a male in fulfilment of her *Satyavacana* or Act of Truth.

Tena hi brāhmaṇa satyavacanaṃ kariṣyāmi । yena satyena brāhmaṇa satyavacaneno bhau stanau parityajāmīti parityajantyāḥ parityajya vā nā bhūc cittasyānyathātvaṃ nābhuccittasya vipratisāro' pi ca brāhmaṇa yena satyena mayā dāraksyārthā yobhau stanau parityaktau na rājyārthaṃ na bhogārthaṃ na svargārthaṃ na śakrārthaṃ na rājnám cakravartināṃ viṣayārtham......... tena satyena satya vacanena mama strīndriyaṃ antardhāya puruṣendriyaṃ

* Harvard Oriental Series. Vol. 29. Burlingame's *Buddhist Legends*.
† *Camb. Trsln.*, Vol. III, p. 63.

prâdurbhavet tasyā stasmin neva kṣaṇe strīndriyaṁ antarhitaṁ puruṣendriyaṁ prādur bhūtaṁ.

She cut out her breasts for the sake of saving the life of a just born infant by feeding with them the famished mother who would otherwise have devoured the child.

The story of Rūpavatī occurs as Rukmavatyavadāna in Kṣemendra's *Bodhisatvâvadâna-kalpalatâ* (*Bangiya Sahitya Parishat*, B.S. 1320, Vol. III, p. 475 ff.) with the same sex change motif (Slokas 13-15).

Another case of change of sex is related of Śikhaṇḍî, son of king Rudrayāna, who was in previous birth a girl, in the *Divyâvadâna*, p. 585.

Kiṃ manyadhve bhikṣave yāsau dārikā yayā pratyeka buddhasyopari saṃkârah choritah esa evāsau śikhandī.

This reappears in Sl. 198, on p. 406 of the *Bodhisatvâvadâna-kalpalatā*. Again in the *Viśâkhâvadâna* of the latter book, in the identification of the birth portion the master says: "I was then Prince Viśākha, and Devadatta was my wicked wife Kalaṅkavatī."

In a Jain book, named the *Kathâkośa* * we read: "As for those two deceitful merchants, Dhanapati and Dhaneśvara, when they died, their allotted period of life having come to an end, they were born as women on account of their deceitful nature, one in Śaṅkapura and the other in Jayanti."

Again "in the story of the Couple of Parrots" (p. 42 *et. seq.*) the hen-parrot wishing to avert the marriage of her Vidyadhara brother who has carried off his own mother to marry her, assumes two forms—*viz.*, of a male and a female ape. The female ape said to the male : "Think intently of their form (*i.e.*, of human beings sitting under the tree) and leap into this well that you may become a woman and I *will become a man.*"

We thus meet with the popular belief in the change of sex in rebirth or transmigration as preserved in Buddhist and Jain tradition.

In chapter XII of the Anuśāsanaparva of the *Mahâbhârata* we read that in ancient times King Bhaṅgāsvana desiring male offspring performed the *Agni ṣṭuta* yajña, in which Agni being pleased gave him a hundred sons. Indra was angry with the king for having performed this sacrifice in which he had a position subordinate to that of Agni. Mindful of wreaking vengeance on him Indra led the king, when he was out on hunt in the forest, to a beautiful lake described with all its poetic convention. As the thirsty king plunged into the water, lo and behold! he was changed into a female. After committing the administration of his kingdom to his sons he retired to the forest, and now, a female as he became, consorted with a *tāpas* (hermit) and had by him a hundred sons in the course of time. He brought

* By C. H. Tawney (Oriental Translation Fund, 1895), p. 71.

these sons to the capital to his former sons born of him when he was a male and all lived together as brothers in amity and concord. The enraged Indra caused dissensions amongst the brothers, and they—the two hundred sons of Bhaṅgāsvana—all died in fratricidal conflict. The king was sore smitten with grief at the loss of his two hundred sons, and when Indra was mollified he gave the king the choice of the revival of a hundred sons of either state, male or female. The king preferred to have his sons of his motherhood resuscitated to him, as he declared the mother's affection was more intense than the father's. We have already seen this confession in the story of "Mother of Two and Father of Two" above mentioned.

It is related in the *Padmapurāṇa* that Sudumnya *alias* Ilā, son of Manu, while hunting in the forest strayed unwittingly into the Kumāravana which was cursed by Śankara, and to his amazement, was turned into a female. Satisfied with his prayers Śankara gave him the boon: "You will be a male and a female in alternate months." As a female he consorted with Budha and became the mother of Purūrava, and as a male he became the father of Utkala, Gaya and Vimala. In another version Ilā was the daughter of Vaivasvata Manu, wife of Budha and mother of Purūrava. Manu supplicated Mitrāvaruṇa for a son but owing to some defect in the ritual, a daughter was born to him instead of a son, and that daughter was Ilā. Subsequently Ilā pleased Viṣṇu with her devotion and was, as a reward, changed into a male and became known as Sudumnya.

This idea has not died out altogether. Dr. Crooke observes: "Dhanwārs in the Central Provinces always ascertain from a wise man whether the soul of any dead relation has been born again in the child, and as it is thought *that there may be a change of sex in transmigration*, male children are sometimes named after women relations and female after men."*

Closely associated with the idea of change of sex in transmigration is the idea of sex-disguise as a prophylactic or protective measure against the evil principle, say the evil eye, or evil spirits or demons. The popular belief is that girls are less susceptible to the attacks of the evil eye or demons than boys. In an article entitled "Prophylactic Disguise for averting Evil" read at the Third Session of the All-India Oriental Conference (1924) Dr. J. J. Modi referred to the Presidential Address to the Folklore Society of London in 1924 by Mr. Balfour who mentions prophylactic disguises resorted to by people in averting the evil eye. They are, for example, (1) Nominal Disguise, one kind of which is giving names of girls to boys, and (2) Depreciatory Disguise, one kind of which is the

* W. Crooke—*Religion and Folklore of Northern India* (O.U.P., 1926), p. 151. Quotes Russell's *Tribes and Castes*, ii, 500. Italics are mine.

sex disguise consisting in (*a*) proclaiming the birth of a boy as that of a girl, (*b*) perforating the nose or the ear of a boy like a girl, and (*c*) making the boy grow long hair to simulate the appearance of a girl. Dr. Crooke says: "Occasionally among Hindus the ears of boys are pierced with the object of producing a blot or imperfection, to assimilate them to girls who are less liable to the attacks of the evil eye or demons."* And again: "children and women need special protection though, as a rule, the latter are less liable to danger than males... .....Pretended change of sex, dressing a boy as a girl is a favourite prophylactic. Actual change of sex is not uncommon in the belief of the lower culture and in the folktales. A tale is told of two Rajputs who planned a marriage alliance, but neither of them had a son and one of them passed off his daughter as a boy. Complications naturally followed, but the father of the pretended boy one day saw his bitch jump into one of Devi's pools and her sex was changed.........A like tale is told of another Rajput girl who was sacred and sent to the seraglio of the Emperor of Delhi. She escaped and took refuge in a Devi temple where she was changed into a boy......... Many cases of change of sex by bathing in Mansarowar lake are reported. Among the Eastern Lushais there is the custom of women dressing as men—one of them in one case marrying a girl, while men adopt the dress and customs of women......change of sex is often simulated in marriage rites, when it is not uncommon to dress the bridegroom as a girl or *vice versa*."†

The idea of giving a boy the name of a girl to avoid the evil eye and prolong his life is as old as the *Divyāvadāna*, probably older. When a mother's sons did not live and none knew how to avert this calamity, some *sādhupuruṣa* came and advised her to give the son a female name (See *Divyāvadāna*, pp. 587, 588):

Evam anekaprakāra kāyacetasor āyāsakāribhir api vratopavāsa-maṅgalair yadā naiva kadācit kāle'sya putrā jīvino babhūvuḥ tadainaṃ ativipule pragāḍhaśokāpagāmbhasi nimajjantaṃ kaścit sādhupuruṣo' bravīt:

Vidhim aparam ahaṃ te bodhayāmi prasiddhyai tvaṃ api ca kuru tāvat saṃprasiddhyai kadācit *yadi bhavati sutaste kanyakanama tasya sakala janapade' smin khapayasva prasiddhya* ॥

And this was done:

tanayaṃ uditaceta Maitrakanyābhidhānaṃ dasa divasaparena khāpayāmāsa loke.

The belief that sex can be changed by means of spells occurs in fiction. In the "Fulfilled Prophecy" (No. XVII) in Schiefner and Ralston's *Tibetan*

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* *Ibid.*, p. 225. Quotes *Ind. Ant.*, X. 332, i. *E.R.E.* vii. 324.

† *Ibid.*, p. 279.

Tales (Broadway Translations, 1926), p. 278, we read: "The Rishi was in possession of spells and magic formulas and knew one spell by which a man might be turned into a woman, and back again into a man."

The motif migrated westwards along with the migration of tales from India. In the Note to Chapter XXI, p. 149, Vol. III of *Arabian Nights' Entertainments* by W. Lane and Stanley Poole in the *Story of the King and his Son and the Damsel and the Seven Viziers* we read:

"And when they were proceeding over the desert the vizier remembered that there was near unto them a spring of water called Ez-Zahr'a (*viz.*, the bright, splendid, etc.) and whosoever drank of it, if he were a man, he became a woman." The king's son drank of it and became a woman. He was again restored to his original sex (p. 151) by drinking of another spring to which he was conducted by a horseman........." It is called the Spring of the Women, no woman drinketh of it, but she becometh a man."

THE TORTOISE IN INDIAN LIFE AND RELIGION. *

By S. T. Moses, Esq., M.A., F.Z.S., F.R.A.I.

Legendary.

It is indeed curious that in the cosmogony of various nations the tortoise should find a place. As in the pythagorean cosmogony, the Hindus believe the earth is supported by an elephant, the 'Maha-pudma', which in turn stands on the back of a tortoise the 'Chukwa'. To the Hindus Koorma is also the Creator of the universe. The earth was lifted out of the waters by the tortoise and in order that it should not roll up under the scorching rays of the sun, eight enormous elephants were placed at the eight corners to keep it ever flat. Among the American Indians also a similar mention of the tortoise is made in their legends of the origin of the earth.

The *Satapatha Brahmana* says: "The creator is called 'Kūrma a tortoise, because having assumed this form Prajapati brought forth all creatures. What he brought forth he made and because he made he is called Kūrma. The Kūrma is also called Kasyapah, hence all the creatures are Kāsyapah, the children of Kasyapa. He who is Kūrma is Aditya, the sun." The *Taittiriya Aranyaka* gives the story of creation as follows:—'The waters were 'salilam' (chaotic). Prajapati alone came into being on a lotus leaf. Seized with a desire to create the universe, he performed tapas. His 'rasa' juice became a tortoise moving in the middle of the water. When questioned if the creature did not come from his skin and flesh the tortoise replied he had been there even from before.' *Taittiriya Aranyaka* also gives us the legend of Rudra drinking poison and the mention there of the Vatha prasnas (the windropes) and Oordhva manthin (the upright churn) links this with the Puranic legend of the churning of the sea for nectar where Vishnu assumes the tortoise incarnation. The legend of Rudra and poison is found in the *Rig Veda.* The Koormavatar legend is found in the *Ramayana, Mahabharata, Vishnu Purana* and *Bhagavat Purana.* The churning of the ocean by the Devas and Asuras with the mountain Mandara as the churn stick and the snake Vasuki as the rope, the sinking down of the mountain into the depths and the incarnation of Vishnu as a turtle to keep it up in position during the churning are the salient features of the story. The *Ramayana,* however, makes no mention of the tortoise. *Mahabharata* and *Bhagavata Purana* say that the poison was drunk by Siva while the *Vishnu Purana* says the snakes took the poison.

* A paper read at the Indian Science Congress, held in January, 1927, before the Anthropological Section.

An occultist who realizes the existence of an esoteric side to these Puranic stories finds the Dasavataras are only the landmarks in the onward march of evolution, both physical and spiritual. The divine turtle, the stage next in evolution to a fish, shows the progress from the aquatic life of Bhakti to the amphibious one of Bhakti and Gnana.

Deities.

Sri Kūrmam or 'Holy tortoise' in Ganjam District is named after the principal deity there, Sri Kūrma Swami, the tortoise incarnation of Vishnu. During the churning many animals were killed and Siva purified the worshippers from that sin. In this temple Siva is represented as having Durga and Bairavi on either side. The temple is said to have been built by Viswakarma, the celestial architect, and Siva's linga is known as Sri Kūrmesvara after Vishnu's incarnation. At Nerenika in Bellary where the hill with the temple dedicated to Mallesvara contains many caves, there is a large shapeless rock which is declared by some to represent a tortoise and by some a fish. This so-called tortoise image receives worship from devotees.

Religious Ceremonies.

In the *Taittiriya Samhita* is mentioned a ritual of burying a living tortoise underneath the altar and says the tortoise thus buried will lead the sacrificer to Swarga (heaven). Brahmins, especially the Nambuthris, use 'Koormasana' (small and low wooden planks in the form of tortoise) for devotional purposes. These 'ama palaga's are also used when taking meals, etc. During marriage ceremonies these 'arumana palaga's made of chammata and of the usual tortoise shape—the tortoise in the west is an emblem of chastity—are used for seating the bridegroom and the bride among Nambuthris.

Tortoises as Sacred Pets.

Observers often while complimenting India on her charity regret that much of it is misdirected; in a list given of the men and animals who get their due (or rather undue) share of such charity the tortoise finds a place. In the Surat and Ahmedabad "hospitals" maintained, from time immemorial, for animals, tortoises have lived for many years though no records exist to show when they began their invalid lives. Feeding the sacred tortoises living in pools and other water courses attached to temples is a certain way of acquiring merit. At Agra devotees or even others feed with balls of flour, baked gram, etc, the innumerable tortoises living in the Jumna which fully seem to appreciate the attention given. Some even leave the water and enter the sands for receiving the doles. In ponds attached to Pagodas in Burma mud turtles are found and these are accustomed to feed on curry and rice thrown in by pilgrims and others who flock to the Pagodas. Sweetened rice is

given as offerings to the mud turtles found living in the tank attached to the famous temple at Puri. According to tradition current there, these tortoises are the descendants of an unhappy man by name Gopal who had somehow offended Jagannatha Swami. The priests who attend to the wants of these creatures and at whose call the turtles come up to the surface are all named Gopalan.

Tortoise as a Tabooed Article of Food.

Though many castes are patrons of tortoise consumption, the fishermen of the East Coast do not even bring it ashore, should one get entangled in their nets. They usually worship the unfortunate creature with apposed hands and liberate it into the sea. But sometimes money and toddy will make them forget for the time being the turtle's connection with Vishnu and to supply specimens either to the Aquarium or to the Government House for an aldermanic banquet. In Maldives and Laccadives the inhabitants who are Mohamedans do not eat the turtles, because of a service rendered by a turtle to the mythological 'creator' of these islands. The islands are said to have been hauled up from the bottom of the sea by means of fish hooks by Komburani and according to their legends it was a turtle which suckled (!) Komburani and brought him up.

Last year two students of the Fisheries Training Institute, Calicut, who belong to the Mukkuva community of fishermen, intercepted a turtle which had come to lay eggs on the usually deserted beach at West Hill, turned it on its back and had it tied down by ropes. While lying in that posture, in the Hostel the creature went on flapping its fins like mourners beating their breasts and looked at people with a plaintive expression in its eyes. The flesh was eaten by all the students of the Hostel belonging mostly to the sea-faring communities—the eaters have no share in the sin—and the shell was taken to the Museum but still the two boys were very sorry and were sure some misfortune—say a failure in the final examination—would befall them. However, they did not fail in their examination but the fear has not yet vanished.

Tortoises and Houses.

Among Nayars for housebuilding a site which is shaped like the back of a turtle is always avoided. According to the 'Silpa Sastram' or 'Maniadi Sastram' which is consulted by most castes in South India, if when the owner and the architect or engineer go to the land on which a house is being built, they see a tortoise, sure and certain it will be destroyed by fire. In the Tamil districts the tortoise is considered an inauspicious creature and should never be seen inside a house. The saying is 'Destruction awaits the house entered by a tortoise or by a Court Amin.'

Totems.

Dr. S. C. Roy speaking on totem worship among Oraons showed Kachappa (tortoise) must have given rise to the gotra now known as Kasyapa and the existence of a wooden figure of the tortoise supported his theory. In South India among Adi Dravidas (Pariahs) Katchan is a common name. It means tortoise catcher or tortoise eater and is seen in the name of the deity Kachaleesvaran. The Patanavars, the great fishing community of the East Coast have the tortoise flag as also the weavers, the Shedan.

Tortoise in Stories and Proverbs.

Tortoise is a type of plodding perseverance—its name Koormam means slow in motion or one who possesses little speed—as is seen from the Aesop's fable where it being slow but steady and sure won the race against the over-confident hare who went to have a nap on the way. In the *Panchatantra,* the Indian collection of animal stories, two ducks help to transport a tortoise by making it cling to a stick with its bill while they carried it by holding the ends with theirs. Seeing this curious spectacle people, in places over which the tortoise was carried in this fashion, assembled and stood gazing at it. The stupid tortoise failing to realize the necessity of clinging on to the stick for dear life, opened its mouth to ask the ducks what the meaning of the action of the men was. It did so and fell on the earth where its body was shattered to pieces. The turtle's back is so shaped that when overturned the poor creature finds itself unable to regain its normal position and it is by turning them on their backs that men capture them. This tactic is referred to in a Tamil proverb which says : ' He entered into argument with him and with his own words upset him as one would turn a turtle on its back ! ' The Tamil word *Amai* for tortoise is said to be derived from Am, meaning water. The species of Nicoria (*N. trijuga*) found in South Indian ponds has the habit of defecating when alarmed or handled and thus fouls the water in which it lives. The Tamil proverb is ' The dumb man spoils the village ; and the tortoise the well '. The tortoise which can withdraw its head, limbs and tails within its double buckler formed by the carapace and the plastron is referred to often in Tamil literature as a good example of self-control. " If one could keep his five senses under control like a tortoise, such discipline will safeguard him throughout his sevenfold births. " The eggs of tortoises are soft shelled and so are proverbial for being soft. Jackals are very fond of tortoises and one experiencing a windfall is compared in Malayalam to a jackal getting a tortoise. Another interpretation of this proverb is that it refers to a useless thing. Those of this school are apparently unaware of the obnoxious tactic the father of stratagems has recourse to, to draw the head of the tortoise out.

STUDIES IN BIRD-MYTHS, No. XVI.—ON TWO ÆTIOLOGICAL MYTHS ABOUT THE PADDY-BIRD'S LONG NECK AND LEGS.

BY SARAT CHANDRA MITRA, ESQ., M.A., B.L.

THE Pond Heron (*Ardeola grayi.—Sykes*) is a very well-known bird of the Indian countryside. It is found most abundantly everywhere in India. It is known to the Europeans in India as the Paddy-bird. In Hindi, it is known as the "*Andhā Baglā*" or the "*Kāni Baglā*" or "the Blind Heron" Mr. W. T. Blanford says: "The native names (of the Paddy-bird) in several languages mean "*Blind Heron*". Its Anglo-Indian name "Paddy-bird" is, most likely, derived from the fact that it is "*often found about paddy-fields*, ditches, village tanks, and similar places, not easily seen when sitting, making a startling display of its white wings, body, and tail when it flies up, often close by the intruder, with a guttural croak."

The most remarkable physical characteristics of the Paddy-bird are its long curved neck and long stilt-like legs. These bodily peculiarities attracted the notice of primitive men like the Santals and the Mundas. The most thoughtful and enquiring men among them set about to find out the reasons as to why this bird's neck and legs are, unlike those of most other birds, long. Being unable to find out the true biological causes of their length, the Santali enquirer invented the following myth to account for these bodily peculiarities of the Paddy-bird :—

When Princess Chandāinī was flying away from her husband Sahdeo Goâlā, she was pursued by a young man named Biso Munda as the latter was very desirous of making her his mistress. On the way, she met various trees and beasts and requested them to do their level best to delay Biso Munda. This they agreed to do. Then she went on and on and, seeing a Paddy-bird feeding by the roadside, asked it to do its very best to delay Biso Munda. On this, the bird drove its bill into the earth and said that it would treat Biso Munda in that very way.

Then Biso Munda, who was in hot pursuit of Princess Chandāinī, met the aforementioned tree and beasts, he cut all of them down. Then he came across the Paddy-bird who pretended to be busily engaged in feeding, and gradually approached nearer and nearer to him. He allowed the bird to come very close to him, and, when it had done so, suddenly caught hold of it and gave its neck such a strong pull that it lengthened the neck out considerably.

After Biso Munda had placed the Paddy-bird upon its feeding-ground, the latter cried out: "I thank you very much for this act. Now I shall be able to catch all the fish in the pond without budging myself."

On hearing these words, Biso Munda again caught hold of the bird and gave its neck another strong jerk which made it still more elongated and somewhat curved down. *This is the reason why the Paddy-birds have necks shaped like the letter S.**

On the other hand, the Munda enquirer manufactured the under-mentioned myth to explain the reason as to why the Paddy-bird possesses long neck and legs:—

Once upon a time, there was a man named Sītā and his wife was named Sītālī. One day, in a fit of huff, Sītālī left home and went somewhere else. Her husband went in search of her. In the course of his search for his missing wife, he arrived at a town of which the shape was curved like that of a scythe, and straight as the spindle of a spinning-wheel.

In a paddy field near this town, a Paddy-bird was foraging for food. Sītā enquired of this bird: "Has my wife Sītālī gone this way? Have you seen her?" The Paddy-bird replied: "I do not know Sītālī (lit. *Sītā mitā*), I know only the pangs of my hunger (lit., the fire of my bowels)."

At this reply, Sītā got enraged, and catching hold of the Paddy-bird, and placing his feet on the bird's legs, he stretched out its neck and head. Since then, the Paddy-bird's legs have become long and stick-like, and its neck has become long and slim, like that of a snake.†

On analysing the aforementioned Santal and Munda ætiological myths, we find that, in the first story, the Paddy-bird, at the request of the heroine, undertakes to impede the journey onwards of her pursuer. The latter, having come to know of this, seized the bird and gave its neck a strong jerk, whereupon the bird's neck became long and shaped like the letter S. But, in the second myth, the Paddy-bird expressed its inability to furnish the hero with some information about the heroine's whereabouts. This enraged the hero who, placing his feet upon the bird's legs, stretched out the bird's neck which thereupon became long and slim like that of a snake, and its legs became stilt-like. So, in both the cases, the punishment of the Paddy-bird by a person who got enraged with it, is the root cause of its peculiar bodily features, namely, its long and slim neck and stilt-like legs.

**Vide* the folktale entitled: "*Sahdeo Goālā*" in *Folklore of the Santal Parganas*, by C. H. Bompas. London: David Nutt. 1909, Pages 116—123.

†*Vide*, *The Journal of the Department of Letters of the Calcutta University*, Vol. IV(1921). Page 303.

We have already seen that the Robin Redbreast owes its crimson breast, and the cross-bill its croaked bill to their efforts to alleviate the pain of the crucified Jesus Christ.

We should now try to find out if there is any other myth in the folklore of any other race or tribe which ascribes the origin of other birds' bodily peculiarities to the wrath or curse of some other person of historical celebrity. We have been successful in finding out such a myth in the folklore of the Malay Peninsula. It ascribes the bodily peculiarities of certain birds to a curse which King Solomon pronounced upon them in a fit of anger. It is as follows:—

King Solomon commanded all the birds, who were his subjects, to go out to forage for food and to return in company to their respective abodes at nightfall. When, one evening, he summoned all the birds to his presence, he found out that the eagle, who was one of his bodyguards, was absent. Then King Solomon enquired from the birds who were present as to the nature of the errand for which the eagle had gone. The majority of the birds replied that the latter had not gone on an errand but had not willingly accompanied them.

Thereupon King Solomon said that if that was the truth, the eagle should be treated as a rebel and that they should cut him down immediately.

On hearing these words of the king, the Blue Heron replied: "Assuredly, the eagle went on some errand or other, I crave one day's respite."

Then the Woodpecker made a similar reply, saying: "If he had done any wrong, I should be the first person to know of it. Am I not one of your Majesty's bodyguards and could I not settle it if he had done any wrong? I crave two days' respite."

Thereafter the Thrush said: "I crave three days' respite."

So, King Solomon granted three days' respite.

When the period of respite had expired, the eagle returned and, after holding a consultation with his comrades, induced the Woodpecker to go to King Solomon.

Thereupon the Woodpecker went to the presence of King Solomon and, after making his obeisance to him, said: "The eagle, your Majesty, did not return the other day, because he found, in the cavern of the rocks, a follower of Her Highness the daughter of the King of the Genii, who is a person of surpassing beauty and is worthy to become a consort of your Majesty."

To this the king replied: "Very well, if you are strong enough to do so, take her from him. You have our permission."

But, in the meantime, the eagle had, with the Woodpecker's assistance, made a hollow in a tree and, after confining the Princess therein, and closing up the hollow with pitch, had mounted guard there.

When the king heard this, he said : " Bring them both here, and I will grant his life."

Then the eagle brought the Princess before King Solomon ; and the King commanded the Queen to make a lather of powdered rice and wash it off the Princess' body again with limes. When this had been done, the Princess' feathers dropped off ; and the white markings on her skin showed up in all their beauty.

Thereafter, the daughter of the King of the Genii was married to King Solomon.

After his marriage, King Solomon said to the assembled birds : " If ye had had nothing to say, ye should have spoken like the Thrush. If ye had aught to say, ye should have spoken like the Blue Heron."

*And he cursed all the birds with a great curse, and that is why at the present day, there are birds of so many different sorts, some with too long a beak, others with too long a tail and yet others with black marks round the neck.**

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* *Vide* the folktale entitled : " *King Solomon and the Birds* " in *Fables and Folktales from an Eastern Forest*. By Walter Skeat, Cambridge : University Press, 1901.

STUDIES IN BIRD-MYTHS, No. XVII.—ON AN ÆTIOLOGICAL MYTH ABOUT THE CARRION-FEEDING HABIT OF THE INDIAN WHITE-BACKED VULTURE AND THE SMALLER WHITE SCAVENGER VULTURE.

BY PROFESSOR SARAT CHANDRA MITRA, M.A., B.L.

THE Indian White-backed Vulture (*Pseudogyps bengalensis.*—Sharpe) is the commonest vulture throughout India and Burma. This vulture and the Indian Long-billed Vulture (*Gyps indicus*) are commonly found about towns and villages where they assemble in great numbers and feed upon carcases of all kinds.

The smaller White Scavenger Vulture (*Neophron ginginianus.*—Blyth) is found throughout the greater part of India. But it is not common in Central and Northern India. *It is somewhat common in Bihar extending as far East as Deoghar and Madhupur in the Santal Parganas.* It is occasionally found in Lower Bengal. This species of vulture also frequents towns and villages and feeds upon human excrement. It also eats carrion. But it does not commonly feed upon dead animals.

I am inclined to think that the vulture referred to in the undermentioned ætiological myth is not the King-Vulture, but the Indian White-backed Vulture (*Pseudogyps bengalensis*) and the smaller White Scavenger Vulture (*Neophron ginginianus*) which latter is common in the Santal Parganas.

The carnivorous or carrion-feeding habit of the aforementioned vultures attracted the notice of primitive men like the Santals who are in a low plane of culture. The thoughtful and enquiring men among these people—the Santals—were unable to make out the reasons why some birds fed upon fruits, seeds and insects and why, unlike them, these vultures fed upon flesh and carrion of all kinds. Therefore, they invented the undermentioned myth to explain how the aforementioned vultures imbibed the habit of eating flesh and carrion of all kinds :—

Once upon a time, a pregnant Santal woman went, in the company of other women of her village, to gather *Karlā* fruits in the forest. While she was gathering these fruits, she was taken ill with the pangs of child-birth and, shortly afterwards, gave birth to twins. Not finding her and thinking that she must have been devoured by wild beasts, her companions returned home. In the meantime, the recently-delivered mother, preferring the basket of *Karlā* fruits to her new-born twins, covered the latter with the leaves of the *Āsan*-tree and left them to their fate in the forest, and brought the

fruits home. On her return home, her parents-in-law and husband came to know of what had happened in the forest and scolded her roundly for her inhuman act in having abandoned her newly-born twin babies. But, for fear of the wild beasts, her husband did not go to the forest in search of the abandoned babies.

No sooner had the mother left the newly-born twins, than a pair of king-vultures swooped down to make a meal of them. But, hearing their piteous cries, they felt compassion for them and took them up to their nest where they brought them up like their own young ones. When the two boys grew up and were able to walk about, their foster-parents—the two king-vultures—placed them upon the ground and allowed them to go a-begging in the neighbouring villages, telling them not to go towards the village where their real parents lived. The two boys went about begging to the accompaniment of the singing of the undermentioned song:—

"Our mother took away the *Karlā* fruit
She covered us up with *Āsan* leaves,
The pair of king-vultures
Reared us—
Give us alms."

One day, however, the twins, feeling curious to see what the surrounding country was like, went to the village where their mother lived. Hearing their song and seeing their appearance, the woman immediately recognized that they were her twin boys whom she had abandoned in the forest. So she called them in, anointed them with oil, bathed them and fed them. Having come across their real mother, the two boys felt very happy and stayed with her.

When the boys did not return to the nest, the two vultures flew out in search of them, and circled round and round over the hut of their real mother. Seeing the two vultures, the mother at once knew what they wanted. So she immediately took the two children inside the hut and covered them up with a large basket.

But the two vultures made a hole through the thatch of the hut, and entering through it, overturned the basket and seized the two boys. The parents, in their turn, also caught hold of the children. Thus the vultures on one side, and the parents on the other, pulled at the children very hard, until they were torn into two pieces. The birds flew away to their nest with the portion of the flesh they had secured. While the sorrowful parents burnt their portion of the bodies on a funeral pyre.

Not desiring to eat the flesh of the boys whom they had brought up, the vultures set fire to the nest with the boys' bodies placed therein. When the flesh was burning, some juice from it spurted on to the bodies of the vultures

who tasted it and found it very delicious. *So they drew out the remainder of the burning flesh from the nest and ate the same. It is for this reason that, from that time, the vultures feed upon the corpses of human beings.**

In the same way, the thoughtful and the enquiring men among the Santals felt curious about the origin of the habit, possessed by tigers and leopards, of eating the raw flesh of the game they kill. They also wanted to find out the reason why cats bury their excrement in the earth. Being unable to ascertain the true causes from which the tigers' habit of eating raw flesh, and the cats' habit of burying their excrement in the earth, have originated, they invented the undermentioned myth or story to account for the origin thereof :—

Once upon a time, the tigers and the cats were great friends and used to hunt together and eat the flesh of the game they killed, *after cooking it just as human beings do.*

One day, the tigers and the cat killed a deer but could not cook its flesh, as they had no fire to cook it in. So the tigers sent the cat to fetch fire from a neighbouring village. As the cat made great delay in bringing the fire, the tigers got angry with him *and ate the flesh raw.* When the tigers saw the cat returning with the fire, the former scolded the latter severely for the delay he had made, and threatened to eat him too, *dung and all,* as the latter *had made them eat raw flesh.* Hearing this threat, the cat fled into the nearest village and would not come out therefrom. The tigers went in pursuit of him but could not enter the village, for fear of the dogs who, with their tails curled up, came out barking at them. *It is for this reason that, from that day, tigers and leopards eat raw flesh, and cats bury in the earth their excrement because of what the tigers had said.*

One day, however, the tigers met a jackal and told him that they were afraid of entering the village and searching out the miscreant cat, because of the dogs with their curled-up tails, which they mistook for nooses with which the dogs threatened to strangle them. But the cunning jackal told the tigers that what they took for nooses were not really nooses, but the curled-up tails of the village-dogs. So, mustering up courage, the tigers entered the village and searched for the miscreant cat high and low, but could not find him out. When they were coming back, the village-dogs came out barking at them. But, this time, the tigers presented a bold front, attacked them and killed one of them whose carcase they ate. *It is for this reason that, from that time, tigers and leopards eat dogs.*†

* *Vide* the Santali folktale entitled : "*The Children and the Vultures*" in *Folklore of the Santal Parganas.* By C. H. Bompas. London : David Nutt. 1909, pages 289-292.

† *Vide* the Santali folktale entitled : "*The Tigers and the Cat*" in *Folklore of the Santal Parganas.* By C. H. Bompas, London : David Nutt. 1909, pages 327-328.

In a similar way, the observant men among the Santals noticed the hares' habit of skipping like leaves blown about by the wind, but were unable to make out the reason why these little animals skipped and hopped about. They, therefore, invented the undermentioned myth to account for the origin of their aforementioned peculiar habit :—

In bygone days, the hares ate men. So a man went to Thākur, the supreme deity of the Santals, and complained to him about the hares' habit of eating men. So Thākur sent for the chief of the hares and questioned him about the truth or otherwise of the man's complaint. But the hare denied its truth and, on the contrary, asserted that it was the men who ate the hares. Thereupon Thākur questioned the man about the truth of this charge. But the man denied its truth.

Therefore Thākur ordered the hare to go and watch a *Kitā* tree for one year and, should a leaf fall from the tree within that period, to bring it to him. Similarly, he ordered the man to go and watch a *Karkot* tree for one year and, if a leaf should fall from this tree within that period, to bring it to him.

Accordingly both the man and the hare went to perform their respective jobs; and watched the trees for one year. On the last day of the year, a leaf fell from the *Karkot* tree. So the man picked it up and took it to Thākur. But, as no leaf fell from the *Kitā* tree within the prescribed period, the hare bit off a leaf with its teeth and took it to Thākur. Thereupon Thākur examined both the leaves and readily found out that the leaf brought by the man had fallen from the tree of itself, whereas that brought by the hare had been bitten off from the tree.

By way of punishment for the deception that had been practised on him by the hare, Thākur rubbed the hares' legs with a ball of clean cotton and then pronounced upon these animals the sentence *that they should thenceforward hop and skip about like a leaf blown by the wind. It is for this reason that, at the present day, hares move about by hops and skips.*

By way of reward for the man's honesty, Thākur conferred on man the boon *that they should thenceforward hunt the hares wherever they would find them and eat them, entrails and all. It is for this reason that the Santals do not clean the hares which they kill but eat them, entrails and all.*

We thus find that, when primitive men like the Santals are unable to account for the origin of peculiar habits possessed by men, beasts and birds, they fabricate fictitious stories or myths to explain the way by which those habits have originated.*

* *Vide* the Santali folktale entitled : "*Hares and Men*" in *Folklore of the Santal Parganas*. By C. H. Bompas, London : David Nutt. 1909, pages 412-413.

MADRAS RECORD OFFICE

NOTES.

Orientation.

BY K. RAMAVARMA RAJA, ESQ., B.A.

EASTERN frontage was a very common feature of the great temples of ancient Egypt, Babylonia, Assyria and the East generally. It is regarded as the relic of the sun-worship as these temples were built in such a way as to allow the rays of the rising sun on the summer solstice to reach and illuminate the sacred figure of the god which stood in the sanctuary at the end of the long, narrow and dark passage. This solar idea is offered as the explanation also for the building of churches with its chancel 'pointing to that part of the east in which the sun rises on the day of the Saint to whom the church is dedicated', as well as for the burials of the dead, sitting or lying, with face turned to the east—'a Christian usage which prevailed through mediæval times'—explained in the authoritative works of the period, as the proper position for the dead to rise and to look toward the east. Edward Clodd quotes Dr. Tylor's remarks as follows:—"It is not to late and isolated fancy, but to the carrying on of ancient and widespread solar ideas that we trace the well-known legend that the body of Christ was laid with the head towards the west, thus looking eastward, and the Christian usage of digging the graves east and west which prevailed through mediæval times is not yet forgotten. The rule of laying the head to the west and its meaning that the dead shall rise looking toward the east are perfectly stated in an ecclesiastical treatise of the sixteenth century." *

But when the dead rises he comes to life again; and further, the temples of the gods and the tombs of the dead are not mutually independent structures, but are related to each other and also to the dwellings of the living; and so also the position of the idols or statues and of the corpses is determined by that of the living. The living model, in short, is copied in the ceremonial arts. Hence the normal or correct posture of man in life seems to be one looking eastwards towards the rising sun and paying him homage in various ways, and in this position he marked out the four cardinal points—east, south, west and north—with reference to his four sides respectively—the front, the right, the back and the left—which he could well distinguish by their characteristic features and uses, from the very outset. That this was his probable starting point is further borne out by the Sanskrit vocabulary which has the same words for the four sides of man and the corresponding four quarters of the earth. Take, first, for instance, the word 'दक्षिण' which means both 'the right side' and 'the south'. Similarly

* Edward Clodd's "*Story of Primitive Man*," p. 134, *vide* also "*The Outline of History*" by H. G. Wells, pp. 104—5.

the synonyms 'पुरः' and 'पूर्वम्' and their derivatives are used to denote 'the front side' as well as 'the east'. The *Geeta* passage "नमः पुरस्तादथपृष्ठतस्ते" (XI—40) is explained thus:—'Salutation to Thee who art in the east as well as in the west.' Here the use of the word 'पृष्ठ' in the sense of 'the west' is noteworthy. Then again, the word 'पश्चात्' and its derivatives are, likewise, used to signify 'the west' as well as 'the back side'. Here may very aptly be quoted the '*Srimad-Bhagavata* passage "पराभूतेरधर्मस्य नमसश्चापि पाश्चिमः" (II—6—9) when 'पश्चिम' which generally means 'the west' is employed to denote 'the back side' (पृष्ठभाग). And last, but not the least remarkable is the use of the word 'उत्तर' which means 'the north' but which is used to denote 'the left side' as well, as in the following passage:—"सोप्यस्यवक्त्रे भुजमुत्तरंस्मयन्प्रावेशयामासयथोरगं विले" (*Bhagavata*—P. X—37—5). Here 'उत्तरभुजम्' = left arm or left hand. These pairs of words denoting the side of man and the quarter of the earth to which it is exposed when he stands looking eastward towards the rising sun may be treated as *twin-brothers*, as it were, and he referred to his correct or normal position as depicted above, *i.e.*, facing the golden orb rising in the east; and 'this eastward position,' it may be further remarked, is the one adopted in almost all our domestic ceremonies, whether performed in day time or at night, and therefore may be described as our 'ceremonial posture'.

What has been stated above is perhaps a hasty conjecture or a rash generalization which is not free from exceptions, objections and uncertainties. Among many a barbaric folk, for instance, the dead is buried with face looking westward, which was also the prevailing custom in the Osirian Egypt, the land of the West being considered as the realm of the dead or the home of souls.* Again, in India itself, among the Hindus, the dying man in the last stage is laid on the floor horizontally north to south with his head at the south end facing the north which is perhaps regarded as his ancient original home or the abode of the gods, or, where the holiest hermitage of Badari is situated to which the sages retire for meditation before death. This is the posture of man in death till he is buried or burned to ashes, and the funeral ceremonies are performed by his nearest relations looking southward—a position in which the dead and the living performer of the ceremony are face to face. Some more notable cases of exception may also be mentioned here. For instance the evening *Sandhya* oblations and prayers are offered in the westward or west-looking position addressing the sinking sun, and for the *pujas* in the temples the posture of the priest is determined by that of the idol. Besides these variations in customs which operate to unsettle my view of the normal eastward position of man determining the four cardinal points, there is the uncertainty as to whether or not the Vedic texts would support or corroborate it, and in this diffidence I appeal to the scholars for my correction.

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* Edward Clodd's "*Story of Primitive Man*", p. 134 (The Library of Useful Stories) and "*The Realms of the Egyptian Dead*" by A. Wildemann, Ph.D., pp. 42 and 53 (The Ancient East Series).

CORRESPONDENCE.

Ceylon and Lanka are Different.

By D. B. Diskalkar, Esq.

In a back number of this Journal (Vol. XVII, p. 17) Mr. V. H. Vader has quoted authorities to show that Ceylon and the Laṅkā island were not the same. I am glad to produce an epigraphical evidence of about the sixth century A.D. in support of his theory. The seventh verse of the Bodha-Gayā Inscription of Mahānāman (Fleet's *Gupta Inscriptions*, No. 71) runs thus—

आम्रद्वीपाधिवासी पृथुकुलजलधिस्तस्य शिष्यो महीयान्
लङ्काद्वीपप्रसूतः परहितनिरतः सन्महानामनामा ।
तेनोच्चैर्बोधिमण्डे शशिकरधवलः सर्वतो मंडपेन
कान्तः प्रासाद एष स्मरबलजयिनः कारितो लोकशास्तुः ॥७॥

In the portion of the inscription preceding this, a great Buddhist preceptor named Mahā-Kāśyapa is praised (*v*. 2). His disciples roamed at one time over the stainless country at the feet of the mountains of Laṅkā; and in succession from them were born, in hundreds, disciples and disciples' disciples (*v*. 3). Then there was the Śramaṇa Bhava (*v*. 4). His disciple was Rāhula; after whom there came the ascetic Upasana I (*v*. 5). Then came Mahānāman I, and then Upasena II (*v*. 6). His disciple, as the above quoted verse states,—greater (even than himself), is he who has the excellent name Mahānāman (II), an inhabitant of Āmradvīpa, a very ocean of a mighty family; born in the island of Laṅkā; delighting in the welfare of others, by whom this beautiful mansion of the Teacher of mankind, who overcame the power of Smara—dazzling white as the rays of the moon, with an open pavilion on all sides—has been caused to be made at the exalted Bodhimaṇḍa.

Dr. Fleet, who edited this inscription, takes Laṅkā as one of the most well-known names of Ceylon. And following General Cunningham he takes Āmradvīpa, 'the mango-island,' to be another of the names of Ceylon derived from its resemblance in shape to a mango. To take Āmradvīpa to mean Ceylon is quite right but Laṅkā and Āmradvīpa cannot be taken to be identical, both standing for Ceylon. For Mahānāman in the verse 7 quoted above, who was the disciple of Upasena (तस्य) is said to have been born in the island of Laṅkā (लङ्काद्वीपप्रसूतः). In the first line he is again said to be residing in Āmradvīpa, *i.e.*, Ceylon. Had both the islands been identical the poet would not have made such a distinction between the place of his birth and that of his residence. I am, therefore, of opinion that Ceylon (*i.e.*, Āmradvīpa) and Laṅkā are quite different as Mr. Vader has shown.

Agastya, the Spiritual Preceptor of the Lata Chaulukyas.

BY D. B. DISKALKAR, ESQ.

IN his very interesting article on 'The Cult of Agastya' Mr. O. C. Gangoly has shown (Above Vol. XVII, p. 172), that "Agastya is reputed to be the spiritual preceptor, *Guru* or *Purohita* of more than one Southern Indian Prince ". I may add here one more epigraphical evidence to show that the tradition was kept on even so late as the eleventh century A.D. In an unpublished copper-plate inscription* of the Chaulukya king Kīrtiraja of Lāṭa (N. Gujarat) found in Surat and dated Śaka 940 (1018 A.D.) obeisance is made to Agastya in the second verse, (the first verse being devoted to the praise of *Bhagavata Śakti*) in the following terms :—

पायाज्जगन्ति स मुनिः कलशप्रसूतो
यत्पीयमानसलिलेष्वतिसाध्वसेन ।
अद्यापि लोललहरी निचयापदेशा-
दश्रान्तकम्पनरतो जलराशिरेषः ॥

This shows that the Chaulukya kings of Lāṭa, who were feudatories of the Chalukyas of the Deccan and had come to Gujarat from the Deccan, acknowledged Agastya as their spiritual preceptor and paid him homage due to a divinity.

ERRATA.

In the article "A Hindu Traveller in Southern India" by Prof. Jadunath Sarkar which appeared in this Journal, Vol. XVII, No. 4, please read the date of birth of Bhimsen as *1649* and not *1657* as printed.

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* Noticed in *Vienna Oriental Journal*, Vol. VII, p. 88. It will be published in the *Epigraphia Indica*.

Salivahana Era.

V. S. BAKHLE, ESQ., M.A., LL.B.

IN his note on the Śālivahana Era published in the last issue of this Journal, Mr. S. Srikanta Sastri has tried to prove that the Śaka Era was founded by Hāla, the well-known author of a collection of erotic verses known as the Sattasai. The question about the founder of the Śaka Era has, of late, received the attention of several scholars; and the suggestion made by Mr. Sastri also deserves careful consideration. Pandit Bhagvanlal and Jackson suggested the possibility of the Śaka Era being founded in commemoration of Nahapāna's conquest of Gujerat;[1] and recently in 1913, Dr. Fleet also felt inclined to hold that the honour of founding this era was due to Nahapāna.[2] On the other hand Cunningham[3] and M. Dubreuil[4] regard Caṣṭana as the founder of this era. All these suggestions have been very carefully considered by scholars; but no satisfactory conclusion has yet been arrived at. The discovery by Sir John Marshall of an inscription at Taxila dated in the era of Azes[5] has thrown considerable light on this question; and it becomes essential now, while considering this question, to keep an eye on the events that were then happening in the North-West of India.

On one point Mr. Sastri is evidently wrong. His statement that numismatic evidence goes to show that Gautamīputra Sātakarṇi lived about 120 A.D. is far from correct. Numismatic evidence, indeed, shows nothing of the kind. The Jogheltembhi hoard included some coins of Nahapāna which were certainly restruck by Gautamīputra Sātakarṇi; but Dr. Scott[6] who examined these coins was of opinion that possibly the various members of the family caused their own likenesses to be engraved on them while keeping the inscription on the coins unchanged as he was the founder of the dynasty. The discovery of the Andhau inscription of Rudradāman[7] has now further established beyond even a shadow of doubt the truth of Dr. Scott's contention and placed Gautamīputra in the last quarter of the first century A.D. at the latest. Mr. R. D. Banerji with his usual keenness has considered this question in his article on the Date of Nahapāna.[8] The date assigned to Nahapāna on the strength of the evidence furnished by his inscription, coins and the architectural characteristics of his period, is the last quarter of the first century B.C. Nahapāna was followed by several other Satraps; and the last of his line was defeated by Gautamīputra Sātakarṇi. Nahapāna and

1. *Bombay Gazetteer*, I, pt. 1, 28.
2. *J.R.A.S.*, 1913, 922 ff.
3. Cunningham, *Coins of India*, 104 ff.; also *J.B.B.R.A.S.*, 20, 227 ff.
4. *Ind. Ant.*, 1923, 82 ff.
5. *Arch. Surv. Ind.*, 1912-13.
6. *J.B.B.R.A.S.*, 22, 223 ff.
7. *Prog. Rep. Arch. Surv. Ind., Western Circle*, 1914-15.
8. *J.R.A.S.*, 1917, 273 ff.

his successors were evidently Satraps of the Saka-Pallava kings; and the defeat of the last Satrap by Gautamīputra Sātakarṇi indicates that the power of the Scythians was then weakened, whether on account of internecine wars or some foreign conquest.

Before 85 B.C. the Greeks were ruling over Taxila. In that year, the Scythians under Śaka Maues overran Taxila and put an end to the Greek dynasty ruling there. In about 58 B.C. Maues was succeeded by Azes, the First. The Taxila inscription discovered by Sir John Marshall is dated in the era of Azes. Probably this was the well-known Vikrama Era. "This interpretation," observes Prof. Rapson "may well be correct in spite of the tradition that this Era was founded by Vikramaditya to commemorate the defeat of the Sakas and whatever may have been the origin of this Era, the assignment of the reign of Azes to this period is justified by other considerations."[1] Azes, the First, was followed by Azilises and Azes, the Second; and the rule of the last named came to an end in about 20 A.D. Liaka Kusulaka, Rajūvala and Śodāsa were all Satraps of one or the other of these princes. Śodāsa has been placed in about 10 A.D.; and as the characters of the inscription of Nahapāna are earlier than those of the inscription of Śodāsa, we must place Nahapāna in the last quarter of the first century B.C. The fact further that Kṣaharāta, the family name of Nahapāna, is found in some of the Mathura inscriptions and the striking similarity between the coins of Nahapāna and the Mathura Kṣatrapas who styled themselves as Mahākṣatrapas indicate that Nahapāna was subordinate to the Mahākṣatrapa at Mathura, both subservient to the Śaka-Pallava overlord. Evidently Nahapāna's inscription must be regarded as dated in the era of Azes founded in 58 B.C.; and the last date of Nahapāna, the year 46 in the Junnar inscription of his minister Ayama, must be regarded as 12 B.C. and not 124 A.D. This conclusion evidently knocks the bottom out of Mr. Sastri's case for Hāla. Hitherto the only date in the Sātavāhana chronology which could be ascertained with some definiteness was the year 124 A.D. In that year Gautamīputra, it was believed, defeated Nahapāna. But Nahapāna's date being now taken a century back, it becomes necessary now to rearrange the whole chronology of the Sātavāhanas. Whatever date we might assign to Gautamīputra Sātakarṇi, it is certain that he lived long before 124 A.D. which also places Hāla far earlier than the epoch of the Śaka Era.

In trying to ascertain the date of Gautamīputra's conquest of the Kṣaharāta Kṣatrapas, we must, as said above, take into consideration the events that were then happening in the North-West of India. Azes the First, was followed by Azilises and Azes the Second. In about 20 A.D. the last named was succeeded by Gondopharnes who occupied the throne of the 'King of Kings' till about 60 A.D.[2] After the death of Gondopharnes his empire was disintegrated; and probably while the Kushanas taking advantage of this chaos marched victoriously into the Punjab, far away in the south, Gautamīputra Sātakarṇi also took similar advantage

1. *Cambridge History of India*, 1, 571.
2. Smith, *Early History of India*, 230,

and conquered the Kṣaharātas. The power of the Kṣatrapas was weakened as a result of the wars in the North-West; and when ultimately even their suzerains were swept away, they had probably no other recourse than to submit to the victorious hordes of the Sātavāhana king. If this interpretation is correct, we will have to place the conquest of the Kṣaharātas by Gautamīputra Sātakarṇi in 70 to 80 A.D.; and this date is consistent with the date we have to assign to Rudradāman in the light of the Andhau inscription.

It will thus be seen that the dates assigned by Mr. Sastri to the Sātavāhana kings are far from correct. They are not consistent with the evidence furnished by the inscriptions, coins and the architecture of the period. In a brief note like this a detailed consideration of the chronology of the Sātavāhanas is out of question. I have only tried to show above that Gautamīputra Sātakarṇi must be placed in 70 to 80 A.D., and it is wrong to make him a contemporary of Nahapāna.

The date assigned to him above raises strong presumptions in favour of Gautamīputra Sātakarṇi being the founder of the Śaka Era. I would have been myself inclined to accept this view but for the fact that none of the Sātavāhana inscriptions mention the Śaka Era. This becomes all the more striking when we find the Rudradāman inscription of 130 A.D. dated in that era and the Sātavāhana inscription of the same period only mentioning the regnal years of the ruling king. If any of the Sātavāhanas was really the founder of the Śaka Era, it is very natural to expect their inscriptions to be dated in that era. Tradition may, for a moment, be left out of account; and the protagonists of the orthodox view must satisfactorily explain the absence of the Śaka Era in the Sātavāhana inscriptions.

REVIEWS.

Studies in Indian Painting.

A Survey of Some New Material ranging from the Commencement of the VIIth Century to *circa* 1870 A.D.

BY NANALAL CHAMANLAL MEHTA, *Indian Civil Service.*

With 17 Plates in Colour and 44 Half-Tone Plates.

Bombay: D. B. Taraporevala Sons & Co., Kitab Mahal, 190, Hornby Road, 1926.

THIS work may be rightly called the finest book that has ever come out from the Indian press. The printing is excellent, the half-tone pictures are beautifully reproduced, and especially the coloured plates are a wonder of execution. The publishers may be proud of the splendid get-up of their publication. Evidently it wishes to vie with Brown's *Indian Painting under the Moghuls;* and though the external appearance of Mr. Mehta's work is as good as the Oxford publication, yet its contents is far behind those of its model. Mr. Mehta's book is not a systematic study of Indian painting, but a collection of disconnected papers and notes, some of which had been already published in *Rupam.* This circumstance causes a great disappointment in the reader, who naturally expects an organic treatise on Indian painting.

Nevertheless the papers are good and interesting and their criticism is sound. The author says that the object of the volume is "to bring together some new materials for the study of Indian painting". This primary purpose of Mr. Mehta is fully accomplished. There are new materials indeed in *Studies in Indian Painting*, not only for the study of Indian painting, but even for the general history of India. The Pallava paintings of the Sittannavasal cave—known only through a short note of Prof. Jouveau-Dubreuil in *The Indian Antiquary* of 1923; the Gujarati paintings of the XVth century; the Benares school presented as an offshoot of the Mughal School; the beautiful paintings of Manaku and Chaitu of the Tehri School, are several new features studied in a masterly way by Mr. Mehta.

His studies are interspersed with abundant historical information, which is the necessary background to any study of art. The civil history of a nation explains many a phenomenon of the history of its art. Mr. Mehta is cognizant of the historical sources of India, but occasionally forgets to give the references to them. We come across some quotations from the *Memoirs* of Emperor Jahangir and from Abul Fazl's *Akbar Nama* without any reference.

Two of the papers have special interest for the historian: 'Secular Painting in Gujarat' and 'A Painted Epistle by Ustad Salivahana'. The first presents a series of paintings in an early MS. of Vaśanta Vilasa, which are a first class source of information for the history of Indian dress. The second deals with an

illustrated historical document of the time of Emperor Jahangir, which refers to a .arman of this Emperor prohibiting the slaughter of animals during the eight days of the Paryushana. This farman was obtained by two disciples of Vijayasena Suri, the successor of Hiravijaya Suri in the leadership of the Jain community of Gujarat. Beautiful Mughal paintings accompany this letter : in one of them Jahangir is shown giving the farman to the two Jaina gurus ; in the other these gurus are presenting the farman to their master Vijayasena. We should be pleased to see this valuable letter critically published together with the paintings.

Mr. Mehta does not agree with Dr. Coomaraswamy as regards the denomination 'Rajput painting'. He prefers to call it 'Indian painting'. His contention seems well founded. Nevertheless we do not endorse the following statement of his: "Hindu painting can be sub-divided into various classes such as Brahmanical, Buddhist, Jaina, etc." Does Mr. Mehta forget that he prefers the term 'Hindu' to Coomaraswamy's 'Rajput', because "it fixes the attention more on the cultural and religious forces which inspired and modified its peculiar development"? For I feel sure that he does not confuse Jainism and Buddhism with Hinduism, as some European authors do.

Mr. Mehta's way of defending the lack of perspective in Indian paintings is ramarkably ingenious. Certainly this is one of the most striking differences that distinguishes Indian paintings from European paintings. But is this an essential characteristic of the former, or only a defect in the execution ? The learned author tries to explain this apparent fault by showing the different purpose of the Indian painter. True, some Indian paintings look like bird's eye views ; and studied from this point of view, perspective is not lacking in such paintings. But was this actually the purpose of the painter ? May we apply this explanation to all Indian paintings ?

Studies in Indian Painting is a *good* book. The student of Indian Art ought to read these pages written with sound reasoning and calm criticism. And even the mere dilettante will be pleased in going through them; for besides being good, it is also a *beautiful* book.

H. HERAS, S.J.

Journal of the Department of Letters, Vol. XIV, Calcutta University.

VOLUME XIV of the *Journal of the Department of Letters* of the Calcutta University is just to hand. It contains the result of the labours of various research workers. A very important contribution is that of T. Das Gupta, M.A., on "Aspects of Bengali Society from old Bengali Literature". Considerable materials regarding the social, political and religious history of Bengal lie strewn over the pages of old Bengali literature. But most of these records contain high-flown panegyrics bestowed lavishly by court parasites on their patrons, the Rajas, whose cause they avowedly espoused. Through the maze of this tangled web of exaggeration the author has traced the thread of life as it really was. His treatise is exhaustive and all credit is due to him for his indefatigable research on the subject. The article comprises many chapters detailing the manners and customs, ship-building and commerce, costumes, ornaments, culinary art, pastimes, warfare, war-music, Hindu-Moslem unity, architecture, religion, education, castes and professions, agriculture and economic condition. The period covered is from the 10th to the 16th Century.

N. C. Chatterjee, M.A., Bar-at-Law, contributes an article on "The Conception of Positive Law in Ancient India," in which he shows the Austinian Doctrine to be irreconcilable with the ancient or modern conception of Law. He also traces in a subsequent chapter the evolution of State and Law.

J. C. Ghatak, M.A., contributes an illuminating article on "The Date of Mricchakatika from Astrological Data".

In giving a brief account of Malayalam Phoneties, L. V. Ramaswami Aiyar, M.A., B.L., traces the history and development of the language from earliest times. He has made as close an adaptation *as possible* of the International Phonetic Association's script to the language.

H. Bruce Hannah, Bar-at-Law, in an entertaining article, suggests a solution of certain problems in ancient Egyptian Chronology.

H. C. Ray, M.A., has given a very interesting and comprehensive survey on "War in Ancient India". There are other minor articles all of which form valuable addition to existing knowledge on the subjects.

C. B.

Manu's Land and Trade Laws.

By Vaidyanatha Ayyar, Esq., B.A.

In this valuable little book "Manu's Land and Trade Laws", Mr. Vaidyanatha Ayyar, B.A., expounds several new theories, which, I am sure, will be welcomed by every reader of Ancient Indian History, as the best contribution to our knowledge on the subject. Though the early period is shrouded in mystery, the author has taken immense pains to penetrate deep into the recesses of the so-called Dark Ages in the Hindu Period and convince the reader with his arguments, regarding the origin, antiquity and authorship of the Code of Manu. He takes us as far back as 2300 B.C. and shows us that the Code of Manu is not a code compiled by some unknown person about 300 B.C. or 200 A.D. as alleged by Doctors Bühler, Burnell and others, neither is it a foundation of the queer medley of consistent systems of jurisprudence administered by the Privy Council and the High Courts of India under the name of Hindu Law as thought by Prof. V. A. Smith. He justifies the statement by a careful study that the Code of Manu is Sumerian in origin and was compiled in the present form by Parashuram in about 2300 B.C., as King Hawenarabi's Code of Babylon, the Assyrian Code and Hattic Code of Cappadocia. He then gives us an interesting account of the extent of "Baratha Khandam", the land and trade laws, the conditions of society, civil life and polity disclosed by the Code of Manu. In the chapter dealing with the law of ownership and property, taxes, tolls and duties, the reader is given a vivid idea of the different well-organized departments of State administration, the gliding scale of rates and the property division from the Vedic Period which passed through different stages of evolution. But what deserves the greatest praise is the beautiful and well-arranged matter bringing out the central theme of the book, namely, the evolution of the individualistic idea of property from the primitive law of the village communities to the fully developed Ryotwari System of Chanakya's times, 320 B.C.

The later chapters dealing with the Smrithis, Kautilya's Arthashastra and the Origin of the Village Communities must be read by all interested in early Indian History as they cover quite a good number of original ideas and theories—the result of the author's extensive and laborious research. I hope that the future scholars will collect together, like Mr. Vaidyanatha Ayyar, more materials and not merely stick up to the deceptive linguistic and literary evidence of the feeble light thrown by the Sanskrit works of a later period. If a number of such books are written, I do not really see why they should not make the early history of Hindustan interesting and accurate, like the early history of most other countries.

C. B.

Bhim Singh :

A Romance of Moghul Times.

BY FRANK R. SELL, ESQ.

(*Messrs. Macmillan & Co.*)

THE hero of the romance, Bhim Singh, is a son of the Rana of Mewar : the heroines are imaginary figures. The reader's interest in the story of the discomfiture of the Moghul Emperor, Aurangzeb, is sustained by the introduction of an element of fiction into the incidents of the period. Mr. Sell's accounts of the boar hunt, military operations and the court of Aurangzeb are very interesting reading. History and fiction are so well blended in the romance that it is difficult to believe that Premabai, the representative of the best traditions of the Rajput race, is a creation for which we are indeed obliged to Mr. Sell and his fine imagination. The book which has been neatly and well got up is a credit to its author and deserves to be in the hands, particularly, of every student. As a story of Rajput chivalry it is unrivalled.

S. S.

XVIIth International Congress of Orientalists,

INDIAN INSTITUTE,

OXFORD.

21st April, 1927.

DEAR SIR,

At the concluding meeting of the XVIth International Congress of Orientalists, held in Athens in 1912, it was agreed that the next Congress should be held in OXFORD. Having obtained the assent of the Vice-Chancellor of Oxford University, and the approval of the Royal Asiatic Society of Great Britain and Ireland, and of the leading Oriental Societies in France, Italy, Germany, Holland, and in America, the members of the Oriental Faculty of Oxford University are making arrangements for holding the XVIIth Congress here during the week beginning Monday, August 27th, 1928.

Coming after so long an interval, it is hoped that the XVIIth Congress may be notable not only for its truly international character, and the number of its participants, but also for the importance and originality of the communications made to it.

I am desired to say that the Oriental Faculty of Oxford University would be grateful for an assurance of public support, and for any publicity which your Society can give to the proposals now made. A Circular Bulletin with fuller information as to membership, arrangement of sections, and other matters, is being prepared, and will shortly be issued.

Yours faithfully,

C. N. SEDDON,

Secretary.

Seventeenth International Congress of Orientalists at Oxford, 1928.

IN accordance with a decision made at the concluding meeting of the Sixteenth International Congress of Orientalists held at Athens in 1912, it was suggested that the Seventeenth Meeting should be held at Oxford. Arrangements are therefore being made for this at Oxford in the week beginning 27th August, 1928. An Organizing Committee has been formed under the Chairmanship of Professor F. W. Thomas, Boden Professor of Sanskrit at Oxford.

The constitution of the Congress has been arranged as follows :—

PRESIDENT.—The Right Hon. Lord Chalmers, G.C.B., LL.D., D.Litt.

GENERAL COMMITTEE.—The Members of the Board of the Faculty of Oriental Languages at Oxford.

ORGANIZING COMMITTEE.—*Chairman:*—Professor F. W. Thomas; *Members:* Professor D. S. Margoliouth, Professor W. E. Soothill, Professor S. H. Langdon, Professor F. L. Griffith, Mr. G. R. Driver (*Treasurer*), Mr. C. N. Seddon (*Secretary*).

TIME AND PLACE OF MEETING.—Proceedings of the Congress will begin on Monday, August 27th, 1928; and conclude on Saturday, September 1st. Sessions will be held in the Indian Institute and neighbouring University and College buildings. Proceedings will be arranged in general and sectional meetings.

ARRANGEMENT OF SECTIONS.—Sections have been constituted provisionally as follows :—

(i) General (Anthropology, Ethnography, Prehistoric Archæology, Comparative Mythology and Folklore); (ii) Assyriology, and kindred Subjects; Ancient Mesopotamia and Asia Minor; (iii) Egypt and Africa (iv) Central; and Northern Asia, with Tibet; (v) The Far East, Indo-China, Malaysia, Polynesia; (vi) India and Iran, Indo-European languages of Asia; (vii) The Old Testament, Hebrew and Aramaic; (viii) Language, Literature, etc., of Islam; (ix) Oriental Art.

The Committee will decide to what section any papers shall be held to belong, and will endeavour, as far as possible, to prevent kindred papers from being read at the same time.

The Sections will be under the control of Sectional Presidents, and will have their own Secretaries. The languages recognized in ordinary use at the Congress will be French, German and English. If it is desired to use any other language, permission must be obtained from the President of the Section.

It is hoped that the subscriptions received will be sufficient to enable the Proceedings of the Congress to be published in part or whole; in which case each full member will be entitled to receive a copy.

QUALIFICATION FOR MEMBERSHIP.—The fee qualifying for full membership is One Pound Sterling. Members may obtain tickets for persons belonging to their families at half the above fee, and such persons will be entitled to all the privileges of membership except a copy of the published Proceedings. Those who wish to become members should send their subscriptions to the Treasurer, International Congress of Orientalists (G. R. Driver, Esq., M.C., M.A., Magdalen College, Oxford).

ORGANIZING COMMITTEE'S INVITATION.—The Organizing Committee now desires by this Bulletin to offer a cordial invitation to all interested to join the Congress, and to give it their support; and also invites members to contribute papers. It is requested that the titles of papers offered be sent so as to reach the Secretary not later than March 1st, 1928.

INQUIRIES.—All inquiries and correspondence (other than applications for membership, which should go to the Treasurer) should be addressed to the Secretary, International Congress of Orientalists, Indian Institute, Oxford.

C. N. SEDDON,
Secretary.

Oxford, June, 1927.

THE K. R. CAMA ORIENTAL INSTITUTE.

Essay for "The Sarosh K. R. Cama Prize" of Rs. 225.

THE Executive Committee of the K. R. Cama Oriental Institute invites an essay from Avestan scholars for the above prize of Rs. 225, containing a lucid and thoroughly intelligible translation in English of the following Yashts, in due accordance with grammar and philology, with notes and comments wherever necessary :—

1. Aban Yasht.
2. Khorshed Yasht.
3. Mah Yasht.
4. Tir Yasht.
5. Gosh Yasht.
6. Meher Yasht.

The essay bearing only the *nom-de-plume* of the writer on the front page should be submitted to the undersigned on or before the 31st December 1928. The full name and address of the writer should be submitted with the essay in a sealed cover bearing only the *nom-de-plume* on the outside.

172, Hornby Road,
Bombay (India),
24th August 1927.

JIVANJI JAMSHEDJI MODI,
Joint Honorary Secretary.

THE K. R. CAMA ORIENTAL INSTITUTE.

Essay for "The Naoroji Pestonji Cama and Navajbai Naoroji Cama Prize" of Rs. 1,000.

THE Executive Committee of the K. R. Cama Oriental Institute invites a prize essay on "The History of the Peshdādian and Kyanian Kings of Persia, based on all sources, especially Avesta, Phalavi and Pazend" for the above prize of Rs. 1,000.

The essay bearing only the *nom-de-plume* of the writer on the front page should be submitted to the undersigned on or before the 30th June 1929. The full name and address of the writer should be submitted with the essay in a sealed cover bearing only the *nom-de-plume* on the outside.

172, Hornby Road,
Bombay (India),
24th August 1927.

JIVANJI JAMSHEDJI MODI,
Joint Honorary Secretary.

List of Subscriptions and Donations received during the Quarter ending 30th June 1927.

Names.	Volume.	Amount. Rs.	A.	P.
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K. R. Srinivasa Iyengar, Bangalore	Life Membership Donation in settlement ..	50	0	0
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Dr. Cowan Holburn, Bangalore ..	XVII ..	5	0	0
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Books presented or purchased during the Quarter ending 30th June 1927.

Presented by—

Government of Mysore.—

Report of Forest Administration in the Mysore State for the twelve months ending 30th June 1926.

Mysore Archæological Department.—

Annual Report of the Mysore Archæological Department for the year 1926.

Government of India Central Publication Branch, Calcutta.—

Annual Report on South Indian Epigraphy for the year ending 31st March 1926.

Asiatic Society of Bengal.—

1. Memoirs of the Asiatic Society of Bengal, Vol. IX, No. 3, pp. 51-130.
   Geographic and Oceanographic Research in Indian Waters, by R. B. Seymour Sewell, Part III.
   Maritime Meteorology in Indian Seas.
2. Memoirs of the Asiatic Society of Bengal, Vol. VIII, No. 6, pp. 317-418.
   Chemistry in 'Iraq and Persia in the Tenth Century A.D., by H. E. Stapleton.

Surveyor-General of India.—

Seringapatam Guide Map.

Author.—

1. The Earliest Monuments of the Pandya Country and their Inscriptions, by K. V. Subrahmanya Ayyar.
2. Manu's Land and Trade Laws, by R. S. Vaidyanatha Ayyar.

Government of Madras.—

The Private Diary of Ananda Ranga Pillai from 1736 to 1761, Vol. XI., edited by H. Dodwell.

University of Calcutta.—

Journal of the Department of Letters, Volume XIV.

University of Mysore.—

1. Oriental Library Publications: Kannada Series No. 15. Kantirava Narasaraja Vijayam by Govinda Vaidya, edited by Dr. R. Shama Shastry.
2. Oriental Library Publications: Kannada Series No. 16. Dharmamritam by Nayasena, Part II, Chapters 10-14, edited by Dr. R. Shama Shastry.
3. Oriental Library Publications: Sanskrit Series No. 69. Abhilashitartha-chintamani of Someswara Deva, Part I, Prakaranas 1-3, edited by Dr. R. Shama Shastry.
4. Oriental Library Publications: Sanskrit Series No. 70. The Vidya-madhaviyam of Vidyamadhava with Vishnusarma's Muhurthadipika, Part III, Chapters 11-15, edited by Dr. R. Shama Shastry.

Purchased.—

The Indian Quarterly Register: 1926, Volume I, January—June. Edited by Nripendra Nath Mitra.

EXCHANGES.

Editors of :—

1. "HINDUSTAN REVIEW," *P.O. Box No. 2139, Calcutta.*
2. "INDIAN ANTIQUARY," *British India Press, Mazagaon, Bombay.*
3. "CEYLON ANTIQUARY," *The "Times of Ceylon", Colombo.*
4. "MODERN REVIEW," *91, Upper Circular Road, Calcutta.*
5. "THE HINDU MESSAGE," *Srirangam.*
6. "WEDNESDAY REVIEW," *Teppakulam, Trichinopoly.*
7. "THE SOUTH INDIAN RESEARCH," *Vepery, Madras.*
8. "THE EASTERN BUDDHIST," *The Library, Sinshu, Otani University, Kyoto.*
9. "THE CHRISTIAN COLLEGE MAGAZINE," *Madras.*
10. "THE EDUCATIONAL REVIEW," *Mount Road, Madras.*
11. "THE VEDIC MAGAZINE," *Gurudatta Bhavan, Lahore.*
12. "ZEITSCHRIFT DER DEUTSCHEN MORGENLANDISCHEN GESELLSCHAFT," *Halle, Germany.*
13. "THE SANSKRIT BHARATHI," *Burdwan, Bengal.*
14. "THE JOURNAL OF THE AMERICAN ORIENTAL SOCIETY," *New Haven, Connecticut, U.S.A.*
15. "THE KALPAKA," *Tinnevelly.*
16. "EVERYMAN'S REVIEW," *Madras.*
17. "MAN," *The Royal Anthropological Institute, London.*
18. "DJAWA," *Kanarillaan, 13, te Weltevreden, Java.*
19. "MAN IN INDIA," *Ranchi, B.N.Ry. (India).*
20. "THE KARNATAKA GRANTHAMALA," *Mysore.*
21. "THE EVENING MAIL," *New Tharagupet, Bangalore City.*
22. "THE JAIN GAZETTE," *Parish Venkatachala Iyer Street, George Town, Madras.*
23. "THE INDIAN SOCIAL REFORMER," *Navsari Chambers, Outram Road, (opposite Hornby Road), Fort, Bombay.*
24. "PRABUDDHA BHARATA, ADWAITA ASRAMA," *Mayavati P.O., Almora Dist.*
25. "THE SHAMA'A," *Aghore Mandir, San Thome, Madras.*
26. "VISHVA-BHARATHI," *10, Cornwallis Street, Calcutta.*
27. "NAVASHAKTI," *Dharwar.*
28. "THE SHRINE OF WISDOM," *The Hermetic Truth Society, Lincoln House, Acacia Road, Acton, London (21-3).*
29. "WELFARE," *91, Upper Circular Road, Calcutta.*
30. "MYSORE BLUE BOOK AND PUBLICITY JOURNAL," *Bangalore.*
31. "BUDDHIST ANNUAL OF CEYLON," *Colombo.*
32. "KARNATAKA SAHITYA PARISHATPATRIKA," *Bangalore.*

33. "EPIGRAPHIA INDO-MOSLEMICA," *Simla.*
34. "YOGAMIMAMSA," *Kunjavana. Lonavla, Bombay.*
35. "MAHARAJA'S SANSKRIT COLLEGE MAGAZINE," *Mysore.*
36. "THE MYSORE GAZETTE," *Librarian, Public Offices, Bangalore.*
37. "PRABUDDHA KARNATAKA," *Karnataka Sangha, Central College, Bangalore.*
38. "INDIAN STORY TELLER," *164, Cornwallis Street, Calcutta.*
39. "THE GUARDIAN," *86, College Street, Calcutta.*
40. "THE YOUNG MEN OF INDIA," *5, Russel Street, Calcutta.*
41. "THE PREMA," *Tungabhadra P.O.*
42. "AL-KALAM," *Bangalore.*
43. "VRITTANTA PATRIKA," *Mysore.*
44. "MYSORE CO-OPERATIVE JOURNAL," *No. 1, 1st Road, Chamarajapet, Bangalore City.*
45. "INDIAN HISTORICAL QUARTERLY," *107, Mechuabazar Street, Calcutta.*
46. "THE PHILOSOPHICAL QUARTERLY," *Amalner (East Khandesh).*
47. "THE KARNATAKA," *Basavangudi P.O., Bangalore City.*
48. "RANGABHUMI," *Basavangudi, Bangalore City.*
49. "INDIAN REVIEW," *George Town, Madras.*
50. "THE VEDANTA KESARI," *Ramakrishna Mutt, Mylapore, Madras.*
51. "JOURNAL OF INDIAN HISTORY," *Srijayavasam, East Mada Street, Madras.*
52. "ASIA MAJOR," *2, Store Road, Ballygunge, Calcutta.*
53. "THE MYSORE ECONOMIC JOURNAL," *Gundopunt Street, Bangalore City.*
54. "THE CATHOLIC EDUCATIONAL REVIEW," *Mangalore.*
55. "THE INDIAN THINKER," *Anantha Rama Varma Press, Fort, Trivandrum.*

Publications from :—

56. THE DIRECTOR OF PUBLIC INSTRUCTION, *Poona.*
57. THE DIRECTOR-GENERAL OF ARCHÆOLOGY, *Simla.*
58. THE GENERAL SECRETARY, BIHAR & ORISSA RESEARCH SOCIETY, *Patna.*
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60. THE GENERAL SECRETARY, ASIATIC SOCIETY OF BENGAL, *1, Park Street, Calcutta.*
61. Do. THE INDO-FRENCH HISTORICAL SOCIETY, *Pondicherry.*
62. THE GENERAL MUSEUM OF FINE ARTS, *Boston, Mass., U.S.A.*
63. THE REGISTRAR, *Chief Secretariat, Fort St. George, Madràs.*
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66. THE REGISTRAR, UNIVERSITY OF CALCUTTA, *Calcutta.*

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67. THE CONNEMARA PUBLIC LIBRARY, *Madras.*
68. THE ARCHÆOLOGICAL SOCIETY, *Hyderabad (Deccan).*
69. THE ROYAL ASIATIC SOCIETY, *74, Grosvenor Street, London, W. 1.*
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71. LE BIBLIOTHECAIRE, SOCIÈTÈ ASIATIQUE, *1, Rue de Seine, Paris.*
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77. THE K. R. CAMA ORIENTAL INSTITUTE, *172, Hornby Road, Fort, Bombay.*
78. ASSOCIATION FRANÇAISE DES AMIS DE L'ORIENT, *Musée Guimet, Place d'lena, Paris (XVI).*
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